AUSTRALASIAN PLANT SOCIETY
NEWSLETTER

PENTACHONDRA

ISSUE 34 MAY 2005



Grevillea bipinnatida



Olearia frostii



Eucryphia lucida



Balaskion tetraphyllum

AUSTRALASIAN PLANT SOCIETY

Newsletter No. 34

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Cover photographs....many thanks to Jeff Irons for supplying the pictures for this issue.

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EDITORIAL

A big thank you to all those members who took the time to submit articles for this issue. It is especially pleasing to hear from so many new contributors.

COME AND MEET US at our ANNUAL AUSSIE PLANT MEETING! On Saturday June 4th, at 2pm, APS members are invited to Sheffield Botanic Garden for our annual social get-together; an afternoon of meeting like-minded people, swapping tales, plants, and information.

Following the AGM, there will be a talk provided by Nicky Rose (former president of the Victorian SGAP). There will also be a display of Australian plants by botanical artist new member, Arnolda Beynon. In addition, APS member, Dr Simon Olpin invites members to visit his nearby garden afterwards - directions will be given at the meeting.

These meetings are informal and everyone is welcome. Don't feel that you have to be extremely knowledgeable about OZ/NZ plants to attend; you dont! Come and tell us what you want to learn and what you want to read about in your newsletter.

Sue

Treasurer's report

2004 was a satisfactory year, more or less "breaking even"; largely because of very low expenses, in particular no Index or Show expenses. However, please note that the "new look" newsletter, which seems to have won general approval, will cost around £300 more per year.

I anticipate a deficit of £200+ in 2005, which our reserves can meet, but an increase in subscriptions will be necessary for 2006 - by how much I will have to decide by autumn but it will be at least £2. I do not think members will find this surprising as the last increase was in 1995. It is not wise to increase subscriptions too often; hopefully we can keep any change for 5 years, so we have to consider future increases in expenditure eg. postage, printing etc over this period.

Membership in 2004 totalled 174. It is important that we attract new members if only to replace annual losses. Hopefully our presence at the RHS Australian seminar in March will help.

I would mention that only some 30% of members take advantage of our extensive seedlist, and as you will see from the accounts this is an expense to the Society. It is not too late to apply this year!

Tony Entwistle

In this issue we have two reports on Irish gardens. Most of us will be envious of the favourable climate enabling Australasian plants to grow so well.....

Down Under in West Cork

The progress of Australasian plants in Kilravock Gardens, Durrus, West Cork

By Phemie Rose

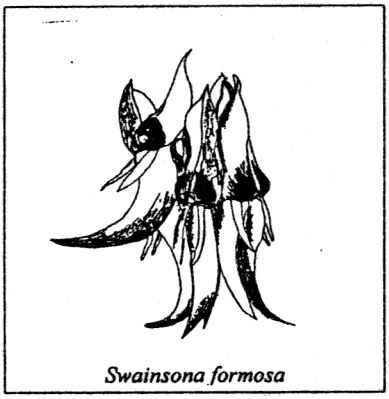
As I write this article in mid January, the wind is howling outside and the rain is lashing down, but the outside temperature is 11 C. Our average rainfall is between 1 000mm - 1250mm. The prevailing winds are from a southerly direction. The soil is acid, very stony with large outcrops of rock. The garden is 2 acres in all facing almost due south of the side of a hill overlooking Dunmanus Bay. The bay is approximately 10 metres from the bottom of the garden. Shelter has been planted around the garden but as the ground is steep and has been terraced only the bottom and west end of the garden has complete shelter. A stream runs down the western end of the garden in the woodland area and several underground springs provide boggy areas. The rest of the garden is pretty well drained. The ambient temperature is mild, with only an occasional touch of frost. Snow has fallen twice in the past 15 years. As we have growth in 11 months of the year plants grow very quickly.



Sollya heterophylla

My special interest is Southern Hemisphere plants and I indulge myself in buying unusual plants and growing from seed and testing their hardiness. I am restricting this article to Australasia although the garden is home to plants from all over the world. *Sollya heterophylla* is still putting forth its lovely blue bell flowers and is 3ft x

3ft and has been in flower for months. I have found by my previous mistakes with the siting of this plant, that shelter is more important than full sun. *Anigozanthos flavidus* is also in full flower (it has been outside for 6 years) and has come through the wet winters well.



Swainsona formosa

Acacia dealbata and *A. retinodes* are also in flower and *Acacia pravissima* and *floribunda* are laden with buds. *Callistemon pallidus* has grown into a large shrub producing loads of lovely pale yellow flowers. *Swainsona formosa (Clianthus formosus)* - planted against a west facing wall has started producing its flowers already this year. *Correa backhousiana* quickly outgrew its allotted space in the southern hemisphere walk and has had to be cut back, as has *Pseudopanax laetus*. Also grown are *P. ferox, P. crassifolius, P. adiantifolius, P. lessonii* 'Purpureus' and *P. lessonii* 'linearifolius'. *Dianella tasmanica* loves its damp shady location and rewards us with a display of stunning blue berries. *Orthrosanthus multiflorus* and *O. polystachyus* grow well with *O. multiflorus* producing darker blue flowers. *Grevillea rosmarinifolius* growing down over rock has formed a mound some 7ft in diameter and is smothered in red flowers despite being exposed to the full blast on the salt laden winds. *G. robusta* is growing well in a sheltered spot at the bottom of the garden, while *G. lanigera* 'Mount Tambortha' with silver-grey evergreen foliage and dusky, pink and yellow flowers is gradually spreading over a sheltered bank at bottom of the Southern Hemisphere Walk. Leptospermums do very well especially *scoparium*' Red Damask'. It has grown into a very large shrub and is already producing its lovely double red

flowers. *Pittosporum bicolor* has grown into a conical shaped shrub and has narrow dark green leaves and brown stems, does not look at all like other Pittosporums - until the flowers appear!!!

Coprosmias are very good seaside plants. *C.* 'Beatsons Gold ' has grown into a large rounded shrub giving all year colour with its bright green and yellow leaves. *C.* 'Kirkii variegata' has covered the ground very quickly. I love the shiny varnished look and the bright colours of *C. depressa* 'Rainbow Surprise', *C. depressa* 'Karo Red ' and *C. depressa* 'Evening Glow ', but unfortunately they do not grow as fast as other species. *Cordyline australis* has become ubiquitous in West Cork and of course our garden is no exception. Who would want to miss out on the heady fragrance of those creamy flowers. Also doing well are *C. australis* 'Atropurpurea', *C. aust.* Purple Tower ', *C. aust* 'Coffee Cream ', *C. aust* ' Torbay Dazzler ' & *C. aust.* ' Peko '. Planted 2 years ago *C. banksii* and *C. indivisa* are growing well; so far *C. banksii* 'Red Fountain ' is surviving its first winter well. However, *Dodonaea viscosa* does not like salt winds at all and having been badly burnt back again last year has now been moved to a more sheltered position where hopefully it might increase rather than decrease in size.

The only Eucalyptus in the garden are *gunnii, niphophila, nitens* and *ficifolia* (grown from seed and planted out last year. Fingers crossed!!). Under *E. nitens* we have started a fernery with Tree Ferns and terrestial ferns many from the Southern Hemisphere.

Senecios and Brachyglottis do well. although *S. glastifolius, S. petasites* and *B. repanda* 'Purpurea' need sun and shelter from the salt wind.

Xanthorrhoea preisii has survived 3 winters outside and is looking healthy. Phormiums and hebes are

the fillers in the garden being very salt and wind resistant. *Phormium* `Jester' is lighting up the garden at the moment with its striking pink leaves, a lovely contrast to the Astelias. Another of my passions is Restios. At present *Baloskion tetraphyllum* (*Restio tetraphyllus*) is the only Australian representative in the garden (compared to 22 South African species) I am trying to source seeds of other Australian species and would be delighted to hear from anyone that may know of a source.

We would be delighted to welcome any members of the Society to our garden, as we love talking `plants'.

Phemie Rose

Pentachondra Cover

The photographs on the cover of this issue represent plants mentioned in this issue or plants whose seeds are available in this year's seedlist. Many thanks to Jeff Irons for supplying the photos.

Last issue, all the pictures were of plants I have grown, although not all of them are still alive!

More irish jottings

My name is Richard Fensome and I am a new member of A.P.S. so I guess that I need to introduce myself. In 1996, at the age of 54, I found myself jobless and in need of a change of scenery. I was a city boy, who had always loved open countryside. Some years before, I had moved to rural Wiltshire, but the city had seemed to follow me there. To cut a long story very short, my partner Alison and myself decided to get rid of our mortgage by moving to Ireland where property was then rather cheaper. We bought an old farmhouse with just under 2 hectares of hill land and began to make a new life. We had previously owned just a town-house on a very small plot of garden.

We made enough mistakes to fill a fair sized book, but we survived them. Over the years making a garden seemed to assume more and more importance. Again lots of mistakes, mainly because the climate is so different from our UK experiences. Slowly it dawned upon us that the plants which thrive here are often rather different to those that we were used to. Many of those that showed promise were from Gondwanaland and these began to fascinate me more and more, stimulated by a gift of some Tasmanian seed from a colleague with roots there. Eventually I joined the APS and note, from reading Pentachondra, that many of you seem to have Gondwanan interests too.

Our patch of land is at around 200 meters A.M.S.L. on the slopes of the Upper Lee Valley in Co.Cork, about 2 Km north of the village of Ballingeary. In most directions around us we have smallish mountains (definitely not hills) rising to maybe 400-450 meters. We are well sheltered by the slope of the land from North and East, but almost totally exposed to the full blast of Atlantic gales from the South-West.

The soil is black and fertile, but full of glacial erratic rock fragment in size from dust up to a small garden shed. Many of those on the surface have to be considered "features" in the garden. In most places digging down 300-600 mm brings you to pale grey boulder-clay. I am informed that I should call this "glacial till" but I always have to struggle for that phrase. On the whole the soil is just on the acid side, pH around 6.5, rich in phosphates, low in potash and adequate in nitrogen. Drainage and water retention are fine in most places, but we can get a little waterlogging in places especially in the Winter. Yes! The rumours that you have heard about Irish weather are true. Rainfall here is around 2 meters on average. Temperatures are mild, moderated by North Atlantic Drift, and drop to maybe -5C a couple of times each year, but not for long. At some sheltered locations on the coast 30 Km from here frost is almost unknown. We usually suffer from a couple of hard radiation frosts in mid April which can really hit back fresh growth made in the mild winters. However, as most of our land slopes these are not usually too harmful to us. Interestingly the village which is around 120 m lower than us in the bottom of the narrow river valley suffers quite badly with both winter and spring frosts. It is said that Ireland does not have a climate, just a random collection of weather and this applies especially to our summers. There are few really hot days here and even in July-August we can have weeks of high winds and lashing rain. But by the same token there are cloudless tee-shirt days in February and in November, indeed January is probably the only month guaranteed to be foul.

Most common garden plants grow with the exception of those originating from places with hot summers and cold winters. This seems to especially preclude many plants from North America and Northern Eurasia. One of my few regrets about moving here is that Apples seem to fail miserably.....but experiments continue.

So what about Australasian plants? (You must excuse me here as I am not a botanist, so botanical names may be doubtful.)

1. Acacia dealbata.....
Fantastic growth rate, up to 20' in about 4 years from an 18" plant, then slowed right down. Gets a bit blown about at times but flowered well last year.

2. Acacia melanoxylon:.....Being promoted here as a forest tree by our local, off beat, forestry guru. Certainly growing well with me, I planted a small grove of rather whippy 5' specimens in 2003 and they have thickened up and grown well.

3. Acacia sophorae.....Still in tunnel, but some will get planted spring 2005.

4. Acacia farnesiana.....Which I believe is Australasia although my seed came from North Africa. Planted out and growing happily despite minor frosts.

5. Allocasuarina littoralis
6. Allocasuarina stricta.....
Unfortunately I got these two mixed up. Both were unhappy growing in pots, but doing well planted. Minor frosts have had no effect.

7. Callistemon ?

8. Callistemon rigidus

9. Callistemon citrinus Splendens..
All rock hardy

10.Cordyline australis.....
Self seeds happily all around this area.

11.Dicksonia antarctica.....
Growing well in ordinary soil, the only protection that we have given it is from our chickens. A friend grows it at about 250 meters in peaty soil with no problems.

12.Eucalyptus glaucescens.....
Pruned to keep it juvenile, marvellous silvery blue. I had trouble with seedlings in tunnel, they all got a disorder which brought them out in small yellow pimples (oedema?).

13.Eucalyptus globulus.....
Will be pruned to keep juvenile, not as good as previous euc. But more bizarre.

14.Eucalyptus gunnii.....
Very common around here.

15.Eucalyptus johnsonii.....
I had a job to get this one to grow upright, maybe it was in the pot for too long. Very fragrant foliage of apple green colour.

16.Eucalyptus perriniana.....
The Spinning Gum, good silver blue and attracts a lot of attention.

17.Grevillea rosmarinifolius.....
I have seen the same plant offered as Canberra Gem. Planted out August, still flowering Jan. and lots of new buds.

18.Griselinia littoralis.....
A too common hedge plant around here, but I have seen a couple grown on to trees in West Cork. These are a good 30' high and still growing. Attractive pale green canopy, a bit like some Magnolias.

19.Hakea?..... Like a Rosemary treated with growth enhancer, but attractive and seems tough.

20.Hebes.....Loads of them! But some get a disease which curls their leaves and causes die-back. Most are tough as old boots though.

21.Leptospermum scoparium..... Lost first one to what looked like wind-burn; must plant more.

22.Lophomyrtus ralphii vars..... Don't seem to be as vigorous here as I would expect from a Myrtle. Even quite slow growing in the polytunnel.

23.Melaleuca gibbosa..... Grows fine, but a little dull.

24.Olearia..... Lots of species do fine here, but I have grown O.argyphylla, Tasmanian Musk, from seed. I have not seen this elsewhere. It seems hardy enough and I find its silvery look very attractive, also the subtle musky aroma of its leaves. Apparently there is one 45' high in Co.Kerry.

25. Parahebe:.....P.lyalii I think. Great ground cover.

26.Pittosporum tenuifolium..... Dr.D.G Hessayon is <u>wrong</u>. A good tree in the right place blooms prolifically and smells wonderful.

27.Pittosporum eugenoides Variegatum... Doing fine, looking good.

28.Pomaderris apetala.....I don't know too much about this, except that it is growing fine and enjoying the climate, minor frost have left it unscathed. Anyone know if its flowers/fruits are attractive?

29.Tasmannia (Drimys) lanceolata. Very attractive in the winter with red stems and dark green leaves. It has grown up to 7' here and still going, easy from semi-ripe cuttings taken a little late.



Tasmannia lanceolata

Lots more are on the stocks, at present in the form of cuttings or seed.

Good gardening, Richard

Gardensgalore2004@utvinternet.com

Both Phemie's and Richard's articles are just what Pentachondra is looking for. Can you write a similar article for future issues?
Include:

- A description of climate
- Info on garden, ie. aspect, sheltered, soil type etc
- Successes & failures
- Requests for info from other members

2005 Seed Distribution

The APS seed list contains over 600 species many of which are not listed in the RHS Plant Finder. As usual there are a large number of Acacias, Eucalypts, Callistemons and Leptospermums and we have new stocks of several Dryandras and Hakeas. Among the new entries are two very decorative *Gompholobium* species from WA: *baxteri* and *venustum*. They require sharp drainage and make excellent pot plants. For those with space to over-winter larger plants indoors, the Norfolk Island Hibiscus, *Lagunaria patersonii*, is easy to germinate.

There are also some interesting climbers: an, as yet unidentified, pink flowered clematis from WA, the very vigorous Water Vine (*Cissus hypoglauca*), the rampant *Kennedia retrorsa* with pink/purple flowers and the delicate twining perennial *Glycine canescens* with blue or violet flowers. I have ordered several fern species (including tree ferns) from Wildseed Tasmania, but local unseasonable weather has meant that as at the end of March I have received no spores. However, please enquire as they may have arrived by the date of this publication.

Members can apply for 20 packets of seed for just £3.

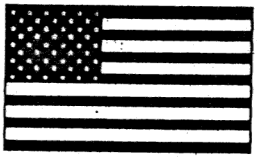
Richard Christmas

SEEDLIST 2005

To apply for a seedlist, send a SAE (at least 6" x 9") to:

Richard Christmas
Osborne House
Wrexham Road
Pen-y-ffordd
Chester CH4 0HT

An electronic version can be obtained by contacting - morayacacia@aol.com



Letters from America #3

In previous issues, **Helen Beaufort-Murphy** has described a garden made while living in Cornwall. Now we move to North Carolina, USA, where Helen is once again taming the land to create yet another garden.

North Carolina encompasses an unusually wide range of climates and native plant species because of its shape and location. The State is approximately 225 miles from the Northern to the Southern border. While from East to West it stretches about 600 miles from the low-lying sandy coastal plains on the eastern coast with hot summers and mild winters with light frosts and little if any snow; through the gradually rising Piedmont

area with extremely hot summers and very cold winters with snow and ice storms; to the heights of the Appalachia Mountains with cool summers and very cold winters and a lot more snow than the Piedmont area (enough for ski resorts).

Location. My property (100ft by 200ft) is located in the beautiful rolling hills of the Piedmont near the foothills of the Appalachia Mountains at Latitude 35.15.15 seconds, Longitude 80.25.45 seconds, and approximately 300m above sea level. In this area the last hard frost of the spring occurs between March 30th and April 30th, and the first hard frost of the autumn occurs between September 30th and October 30th. January and February are the coldest months of the year in this area and there are usually several lengthy periods of zero°F (-18°C) during these months with snow and/or ice storms. However, during an occasionally very cold winter the temperature has dropped to as low as minus 5-6°F (minus 20-22°C). An average summer in this area includes long periods of 98-100°F (38-40°C) with humidity of 95% or higher and occasional heavy rains (such as the Hurricanes of this summer). The milder spring and fall 'seasons' usually last only 10-14 days between the longer summer and winter periods of extreme temperatures.

Wild Life I've seen since moving in: Deer in the woods behind my back garden; Rabbits (historically imported from England); Woodchucks; a Box Turtle strolling around the lawn; a solid snow-white Skunk; many beautiful bird species including Hummingbirds, a large Barred Owl is often seen in the trees at the edge of the woods and Wild Geese fly over my house each day to a nearby lake; a large Cotton Mouth Moccasin snake (very poisonous) in my carport; Ticks (carry Lime disease and spotted mountain fever); Mosquitoes (carry West Nile Fever); Chiggers (burrow beneath ones skin and make nasty infections); Carpenter Bees (like giant Bumble Bees and drill large destructive holes in the exterior wood of houses); Paper Wasps (up to 10,000 occupants per nest); Termites that will ruin a house if one does not keep the wood parts treated; and Poison Ivy (a plant) that causes a horrible rash that can put a person in hospital.

Landscaping: The soil on my property is sticky, acidic red clay that is liquid mud when it rains, concrete hard when it dries out and it can heave plants out of the ground when it freezes. And past experience has demonstrated that very few ornamental plants will grow in it. The house was built around 1985 and none of the previous owners had done any landscaping. I am very sensitive to Poison Ivy, and landscape people do not like working on property with it, so the first thing I did was spray all the Poison

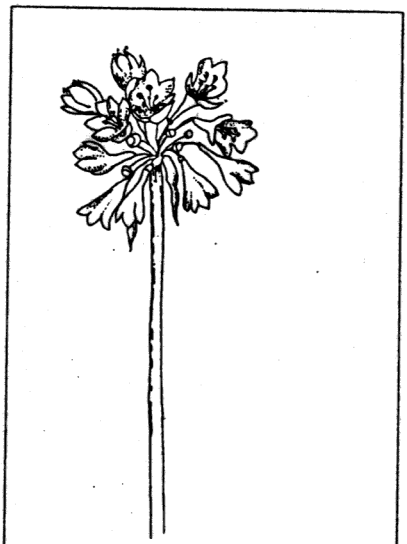
Ivy plants with brush killer. Then I had fencing installed around the boundary for privacy and to keep out wandering dogs. In January '04 the grass turf was stripped from the future planting areas, the existing soil was broken up and cultivated to a depth of 12-18 inches and 9 tons of 50% top soil and 50% composted mulch was cultivated into the loosened clay with an addition of bone meal and a general fertilizer, plus a granular weed killer (Snapshot).

The future flowerbed shapes were staked out in early spring and throughout the summer eighty stained 8ft x 4inch landscape 'logs' were gradually installed as edging around the beds. The 'logs' are pressure treated centres of Pine trees that are left after the lumber has been cut from them and are usually clean and white when delivered. But, unfortunately, because of the heavy rains this year mine were completely covered with a black slimy mold when they were delivered, and it took me weeks to scrub them with bleach before I could stain them (at least I got lots of exercise). The land slopes irregularly so the logs were installed 4inches below ground level and 8-12inches above it in order to make the tops of the bed level. On July 29th 4 more tons of topsoil was brought in to fill up the beds. At this time the pH of the beds across the front of the house and corners of the lawn tested from 6 to 6.2 and that of the island bed in the lawn was 4.5. Some thirty to forty shrubs and trees that I had been growing in tubs were planted out into the flowerbeds and lawn at this time. By late autumn the soil level in the beds had fallen several inches due to the heavy rain from several hurricanes, so 2 more tons of topsoil was spread on the beds on November 29th, making a total of 16 tons of topsoil. The flowerbeds now have between 24-30 inches of dark, humus rich soil with lots of worms and all of the newly planted shrubs and trees had started to grow before the cold weather started.

Now that the basic house and garden renovations are finally finished I am really looking forward to starting a lot of plants from seed this year. These will include hardy perennials and bulbs to plant out in the garden as well as tender species to grow in containers and enjoy in the garden during the summer and protect in the greenhouse each winter. My greenhouse is small (8 x 8ft) but with bench and floor space, plus careful planning, I have enough space to over-winter an interesting group of container plants to put out in the garden each year.

Calostemma purpurea: I was absolutely delighted when Jeff Irons sent me a tiny seedling bulbil of *Calostemma purpurea* in July 2000, even though he said it might take 6-7 years to flower. The plant was somewhat

mashed when it arrived so I was not sure it would survive. But I potted it up, in a 1-1-2 mix of vermiculite, Coir and turkey grit, and within a few weeks new leaves appeared and the number and size of the leaves increased steadily from 2001-'04. The potted plant was put out on the south facing bed on the front of the house around May 1st of this year ('04) with the other containers of tender species.



Calostemma purpurea

Then, on August 17th following the drenching 8-10inches of rain from two hurricanes, I was surprised and delighted to see that a flower spike had appeared (just 4 years from when Jeff sent it!). The inflorescence grew rapidly, the first of 20 flowers opened on August 20th and the flowers lasted for nearly two weeks. The flowers, which were much larger than I had expected, were a beautiful deep rose pink, with white tips on each petal and a silvery sheen to the entire surface of each flower. By the beginning of December a second group of leaves had emerged at the side of the main bulb. So I'm now hoping for an even bigger display of flowers in 2005. According to Cronin's "Key Guide to Australian Wildflowers" *Calostemma purpurea* grows along the coastal cliffs of SA as well as along the banks of the inland rivers of NSW and Vic and flowers in the summer and fall. In view of the fact that it flowered here so quickly after the heavy rains I wonder if it flowers during the rainy season in its native habitat and needs a lot more water than I had been providing?

Pandorea jasminoides. This species is a particular favourite of mine because it is a popular garden plant in Lima, Peru and brings back many happy memories of when I lived there. I purchased a small potted plant of this species in 2002 but it only produced 2 or 3 flowers that summer. I repotted it last year in a I-I-1-1 mix of vermiculite, Coir, turkey-grit and topsoil, in a 12inch pot and, because I was not certain if it could take the full intensity of the sun here, I put it out in partly shaded spot for the summer. But it did not produce a single flower. This year I put the pot out on the south facing bed along the front of the house (with the other container plants) and watered it regularly. New stems

soon reached 3m and there was a solid mass of large, ruffled pink flowers all summer, until I pruned it and put it back into the greenhouse when a hard frost was predicted in October (the roof is covered with shade cloth because of the intensity of the summer sun). After I put the plant back in the greenhouse the remaining buds fell off and no more were produced. Apparently it needs a high level of both light and heat for profuse flowering. According to Cronin's "Key Guide to Australian Wildflowers" this species is found in the wet areas of the forests and rain forests of Qld, Coastal NSW and Vic. So maybe the heavy rainfall from this year's hurricanes was also a factor in the mass production of flowers?

Helichrysum bracteatum: The Dargan Hill variety of this species had produced a spectacular display for me in St. Buryan, Cornwall and I had hoped seedlings of the species would provide colourful and temporary fillers for the current empty spaces in this garden. The plants grew very slowly, then finally produced one tall stem per plant, but they did not produce a single flower until the last week in October just before the first hard frost. I will not bother with it again.

Serendipity and Seed Germination: Two years ago I purchased seeds of *Monopsis lutea* (a Campanulaceae species from Africa not Australasia). I could not find information regarding the species habitat or cultivation methods in any of my books so I tried various seed sowing methods. But until this spring none of the methods resulted in germination. Then, in May, several seeds germinated in the pot I'd sown last year under 'bog' conditions and this fall more of the seeds germinated in the same pot. So far the seedlings have grown very slowly. While looking for cultivation and/or habitat information about *M. lutea* I browsed through various publications with Campanulaceae genera and species, including those from Australasia and Africa. And in Murray Ralph's "Germination of Local Native Plant Seeds" I came across his statement that ". . . some sources suggest the use of 12 month old seed for *Wahlenbergia stricta*". Which compares with my germination results with *M. lutea*. Apparently the seed of *Monopsis lutea* have either an after-ripening requirement and/or a germination inhibitor. So, despite the fact that *M. lutea* is not an Australasian plant species, I was lucky enough to find the information I needed in a book about Australian plants.



AN AUTUMN HANDFUL

Tim Longville

A handful of notes about plants, most of which have been stimulated by other people's notes and comments in the last (winter) issue.

First, a couple of additions to Jeff's discussion of correa cultivars in the last issue.

For the past couple of winters, here on the Solway Coast I've been growing a cultivar named `Dusky Maid', in the ground though admittedly sheltered against a wall. The two winters have both been mild but all the same there have been several patches in each when for several consecutive nights the temperature went down to - 3C or perhaps a little lower: temperatures by which the plant was neither damaged nor even, apparently, in the least troubled. On the other hand, all correas here (an area with low light levels; a garden with far too many plants and far too much evergreen foliage) tend to become leggy and spindly. This one is no exception. I know, I know, I should tip-prune it regularly to promote bushiness. In another lifetime, perhaps. Not, at the moment, in this one. By and large, plants here grow as they grow - and if I don't like the results I get rid of them. As for flowers, they are produced in reasonable quantities but not, here, with the profusion of *C. backhouseana* or `Marian's Marvel', the `industry standards' as far as I'm concerned. Also the flowers of `Dusky Maid' are so similar to those of `Dusky Bells' that I wonder if it really justifies its separate name. Is this one more example of the old old story of an energetic nurseryman with a way with words and an eye for the main chance?

Jeff mentioned the correa cultivars now being bred in California. The example here has the eye-catching name, `Dawn over Santa Cruz', and is one of several created by Ray Collett of the Santa Cruz Botanic Garden. Since, thanks to Jeff's cutting-rooting skills, I now have a second plant `as insurance', the original plant has been planted in the ground, over-wintered there last year - and came through quite unharmed. Its flowers are similar to those of `Marian's Marvel', so they certainly live up to its eye-catching name: and the plant produces them almost if not quite as profusely as `Marian's Marvel' itself. On the other hand, its growth habit is also like `hers'. That is, though admirably vigorous and quick-growing, it is also (here, at least) even more lank and floppetty than most.

Two final correa-comments:

1. I now grow one `Marian's Marvel' out in the open, away from wall-shelter, and so far `She' copes there just as comfortably with our winters. The only problem I find growing `her' in the open is that her top-heavy floppiness plus a relatively lightweight root-system means she tends to be blown over whenever we get a good Solway sou'westerly. I shall soon be trying `Dawn over Santa Cruz' in the open, too - though I suspect the results will be very similar.

2. Against a wall, `Marian's Marvel' has in the past coped untroubled with brief episodes of temperatures down to as low as -7C or -8C: so I rather wonder about the reasoning behind, and evidence for, the RHS's AGM listing of her as purely a conservatory plant.

I was interested in Sue's account of finding *Dodonea viscosa* 'Purpurea' in her local garden centre. (Not in a garden centre in West Cumbria, she wouldn't'). I was even more interested in her description of its leaves as `dark purple'. I agree that, yes, it does have very handsome foliage but here and in my specimen, at least, the new leaves age from green not to any shade of purple but to a glowing red-brown. That colour is very rich and satisfying so I'm certainly not complaining - though it is a hit lost here against the garden's red sandstone walls! Is this a variable cultivar? Or does the colour vary in response to different conditions? If

the latter, which conditions produce which colour? And can it be persuaded to come up with any others, apart from 'rufous' and purple?!

Despite its fine foliage, I've encountered three problems with growing this plant. The first problem is that if it's grown in the open, then a really cold snap (anything around -8C or below) causes equally real and substantial damage. The second is that, grown for protection against a wall, its habit tends to become, yes, you guessed, lax and spindly. The third is that 'something' seems to find its leaves chlorophyll-caviare. The affected leaves are often substantially smaller than healthy ones and always have distorted edges: 'nibbled' cum irregularly lobed, rather than smoothly sort-of-lanceolate. (I'm very bad on leaf-shapes so don't trust me on that. In layman's language, 'Long and thin and with a tip which hovers between being rounded and pointed!) I've inspected the affected leaves frequently and closely but have never spotted whatever miniscule critter is (I assume) doing the damage. Does anyone else have the same experience? If so, theories about the specific sap-sucker (I assume) responsible? Even more helpful, of course, would be suggestions for a cure.

My next comment-cum-query isn't about an Australasian at all but it is at least about a tender-ish exotic. Sue mentioned seeing last year 'an impressive' *Colletia cruciata* at Bodnant. (*TPF,* I notice, now wants us to merge that into C. *paradoxa.)* I don't grow that species but (the perhaps somewhat hardier? - and sadly, Sod's Law dictates, also somewhat less impressive) C. *hystrix* (syn. *C. armata)* instead. That does sometimes have its latest and hence unripened shoots scorched and killed by cold winds but survived without *substantial* damage here even through the bitter cold of the New Year week of 1996. My query is: in Britain, when is the brute *supposed* to flower? Mine doesn't flower every year, anyway, but when it does flower its flowering time varies enormously. In fact, it has chosen every month from May to November: and this year is in full flower as I write on 12 November. Is this amount of variation 'natural'? (The non-flowering years are equally inexplicable. I can't find any clear repeated pattern to the 'conditions obtaining' in those particular years.)

Finally, some notes not related to the last issue.

First, a word of praise for Jeff, who provided seed of *Aristolochion discolor* a few years ago. Germination: easy. Growth: swift. Eventual size: doubtful, but 'big shrub, small tree' seems likely. I've been unlucky in that all my plants seem to have been of 'the wrong' sex. As I recall, male plants, smaller flowers; female plants, larger and showier ones.

Two comments about it 'in cultivation'.

The first is that even up here in the damp and grey north-west, it makes a considerable autumn-into-winter show with its hundreds of clusters of little white rose-family flowers.

The second is that a plant which was given to my step-daughter was planted in her hot and dry and sunny town-garden in Brighton, in a raised bed against a south-facing wall, and in that situation it has already made a 4m x 4m shrub whose foliage at this time of year is virtually invisible under its quite ludicrous profusion of flowers. What's more, that 'snow-storm' reliably continues until Christmas (when they usually cut a branch or two for 'exotic indoor decoration') and usually for quite some time beyond. The plant makes such a spectacular winter show there, particularly since it erupts among the usual restricted palette of the usual urban-cum-suburban landscape, that people passing in the street are stopped dead in their tracks and, if

anyone is available to be asked, enquire in awed tones, 'What is that plant?'

(She confesses, with no discernible shame, to pointing out smugly to such enquirers that they can't follow up their enquiry with an acquisition, since the plant isn't commercially available in the U.K. I don't *think* she actually claims to have grown the plant from seed she collected in the wild... Though I'm trying to train her to provide enquirers with APS contact details, I suspect she doesn't find that idea sufficiently dramatic.)

And all of this display, remember, is produced by a plant of what I gather is the smaller-flowered sex... I confess its foliage and habit aren't particularly distinguished. 'Decent but dull-ish' would about sum it up. On the other hand, any plant which flowers so startlingly through the dead heart of the year seems to me to earn its space.

Next, a couple of comments on a couple of olearias. One is a recommendation, the other a plea for an identification.

O. arborescens is only available from a handful of nurseries. (All, according to TPF, in Scotland, which seems rather odd. Is there a reason or is it pure chance?) Why, I wonder, is it so rarely offered? OK, one more white-flowered daisy-bush isn't everybody's cup of tea, but if you are interested in olearias at all, this one seems to me to have a good deal going for it. Its large, triangular, glossy, pointed, slightly undulating, deep-green leaves, slightly 'silvered' beneath, are attractive all year round, and the buff colour of its mature stems provides a good contrast. Then, it grows vigorously and quickly and makes a good shape. (I haven't yet had the nerve to consult 'the authorities' to discover how big it's likely to be when mature. I strongly suspect the answer is, 'Bigger than you want it to be'...) Finally, it flowers vigorously, even when young, while both the individual flowers and the whole clusters of them are of a good size and a good clean shade of white. How hardy is it? I don't know. It hasn't had to face a hard winter here yet. Certainly -3/4C doesn't discompose it at all. That, for the moment, is as far as I'm prepared to go - though if those temperatures don't trouble it in the least, my expectation would be that it would take several additional degrees of frost to cause any serious damage.

And then, the (self-created) mystery. This is another 'missing label' situation, I'm afraid. I blame the birds... The shrub is low, spreading, slow growing. (It's no more than half-a-metre tall after 3 or 4 years.) Its big, tough, rounded, dark green leaves are silvery beneath. It has never been damaged by cold. Though it has yet to flower here, it earns its keep by an overall effect which is chunkily impressive. I think of it as being the plant equivalent of one of those 'miniman-mountains', the lightweight weight-lifters. The question is: what is it? The subsidiary question is: why do some of its leaves regularly become discoloured (first covered with dark blotches, next yellowed) and soon thereafter die? Not just 'normal ageing', surely? Are the conditions in which I'm growing it wrong? (Damp acid soil. sheltered semi-shaded raised bed against an east-facing wall.) Or is it being attacked by some disease or pest? Suggestions both as to the nature of the problem (if problem it is...) and a cure for it would be gratefully welcomed.

Finally, a couple of mildly cheering stories, of the sort any experimenter with strange plants and hardiness-levels needs to experience and/or hear from time to time.

A few years ago I grew from spores several species of Australasian ferns which were not then (and I don't think are now) commercially available in this country. I forget whether the spores arrived through the APS seed-list or, more probably perhaps, as one more example of the generosity of Einion Hughes, who was an enthusiastic member of many specialist societies, among

them the British Pteridological Society. Certainly this neophyte grower of ferns-from-spores was coached by Einion through the complicated procedures involved. And had as a result considerable and unexpected success. (Certainly unexpected by me and I suspect by him as well!) Many of the species which germinated failed, it is true, to make it past the fern-equivalent of the seedling stage. Others failed, later on, to survive their translation to open ground. However, at least one species has in the years since become a charming small-scale addition to my modest fern collection. The species is *Blechnum chambersii*. It has finely cut, light-green fronds, and makes an airy but low growing mound between 9 and 12cms across. If in the long term it proves to be as hardy as it has been in the short term, it certainly ought to be seen in the future in far more damp-but-discriminating UK West Coast gardens.

My last note comes from the opposite end of the size-scale and isn't a 'real' fern but a plant which has 'fern-alike' foliage on a grand scale. A couple of years ago my specimen of *Grevillea robusta* had outgrown both any available pots and any available space either under glass or in the house. So out it went that summer into the ground. Though I gave it my most sheltered corner, in the angle between south and east facing walls, I fully expected to be digging up its corpse come spring. In fact, it came through that winter, and last winter, both admittedly mild ones, with only minimal damage. It clearly much prefers being in the ground to being in a pot and by early summer each year since has produced an abundance of fresh new foliage. In combination with a red-flowered cestrum, a creamy-white flowered iochroma, and an underplanting of hedychiums, salvias and tenderish ferns, it creates for the moment an encouragingly lush little corner.

'For the moment', notice: since both experiment and encouragment do, after all, need to be tempered with a dash of realism!

Growing Banksias

Jeff Irons

Banksia seeds are popular with APS members, being wanted both as foliage plants and for their flowers. Some people try them and fail - miserably! The reason was that they did not know that banksias do have needs that are different from those of most of the plants we grow. If you know those needs they turn out to be undemanding and in fact very easy to grow.

The first thing is to know that they belong to the same family as proteas. This tells us that they have adapted to poor soils, and have developed special roots to enable them to cope with the low nutrient levels of those soils. These seasonal roots enable them to absorb phosphate, and many banksias are poisoned by levels of phosphate that we would consider normal or even low for other plants. Most banksias grow in sandy soils. We need to simulate the conditions found in the wild. This means giving them a very well drained acid compost.

Two methods have been found satisfactory when starting from seed. One is to sow seeds shallowly in a communal pot and remove each seed as soon as germination is seen, transferring it to an individual pot. The other is to sow seeds singly in 6 inch pots. Some growers use 2 seeds then thin to one seedling. Young plants can stay in a 6 inch pot for at least three years.

Seed of *Banksia canei* needs to be stratified, but the other species need warm conditions, and if sown too early in the year will rot. Ideal temperatures vary from 10-25°C for *B. coccinea* (optimum 15°C) through to 28-32° for *B. aemula*. After germination seedlings grow best at 25°C. In practice this means that amateurs with a small greenhouse should not sow their seeds before April, so that both germination and subsequent growth can take place under favourable conditions. Germination takes between 3 weeks and 3 months. The large seeds have plenty of food reserves in them and no fertiliser will be needed in the first year.

As far as I know suitable fertilisers for subsequent years are not sold in Britain. I have been successful with low doses of Maxicrop seaweed extract supplemented with Chempak zero phosphate mix. If too much fertiliser is given growth rates will actually slow down. To get round that problem I have tried another technique with both telopeas and isopogons. It should also be suitable for banksias. A deep layer of leafmould is put on the soil surface. The idea is that as it decomposes nutrients will wash down into the upper part of the compost. That is where the special proteoid roots are. Australian growers recommend that each plant be given 0.5g urea plus 0.5g potassium chloride every six weeks throughout the growing season, applied through the irrigation system. They also give 1g ammonium nitrate and 1g potassium sulphate per week when the plants are growing actively. Under their conditions large plants need 4 l of water a day. Dried blood has also been found to be a satisfactory fertiliser. Unless you can provide special conditions the final container needs to be quite big. The plants lent by Kew Gardens to Eton College for the Joseph Banks Exhibition were in half wine barrels. Ness Gardens uses them too and APS member Liesbeth Uijtewaal de Vries grows hers in 35l. containers. Another APS member, Caroline Langensiepen has found that if she supplies their water needs by trickle irrigation plants can be grown successfully in relatively small pots.

In many species the first flower buds will be produced after 4 or 5 years. Flower bud initiation is in summer for flowering the following year and the buds appear on two year old shoots. After the first flowering the pruning strategy can be developed. Notice the diameter at the base of the current year's growth on flowering shoots. This will be the critical shoot diameter (it is different for each species), shoots thinner than that critical size will not flower. Remove all thin and weak shoots and all shoots with 2 or more bud scars. The bud scar is the ring at the base of the current growth. This will leave the thickest shoots on the plant, and they have the best chance of flowering. Unless they are wanted for harvesting of cones for flower arranging all flowered stems should be removed. Old plants can be cut back hard without fear of damage.

Problems: there do not appear to be any troublesome pests. Low winter temperatures can result in uneven or shortened flower heads

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Pseudopanax species in my garden

John Buxton

In my frost pocket garden in Worcs, on a fairly heavy soil which I try to improve as much as possible, I experiment with a wide range of plants . Over the years I have had a few successes and also some failures, however I learn all the time ! I think it is wrong to expect all plantings to survive and plants are usually good value to purchase so I am not too unhappy if I lose a few .

I grow an eclectic mix of plants but have always enjoyed plants (generally evergreen) that create that "exotic, or tropical " look in the garden. One of the shrubs (often trees in their native habitat) that help create this look are the species of Pseudopanax, mainly from New Zealand I think, although there may be spp from Australia. The hardiest species of Pseudopanax seems to be *P.crassifolius*, which I grow in a dryish bed sheltered from the N and E by conifers. Although it was cut back by a hard frost a few years back, it grew back strongly and is now over 2 m high. The lanceolate , bronze coloured leaves are stiff and project out directly from the main stem, and look very handsome and striking.

Alongside is *P.ferox*, an even weirder plant with very stiff serrated leaves in browny-bronze colour. My plant is at present about 1 m tall but has only been in place since 2003, so time will tell if it as tough as *P.crassifolius*.

The most exotic looking Pseudopanax in my opinion, however, is *P.laetus*, which t have not tried in the open garden. I first saw this species in shade at Coleton Fishacre in Devon and thought "wow" I have to have this plant !!!. I grow my plant in a large pot, right in the angle of two walls in semi-shade. In winter I protect the roots by covering the pot in bubble polythene, but other than that have not protected the foliage at all. *P.laetus* has huge oval dark green leaves and my plant is now over 2.5 m tall, with leaves right down to compost level. In this position it is an easy and undemanding plant and gives me pleasure every time I see it .

New this year is *P.arboreus*, which has interesting leaves, but has only been in place since July 2004. However, it is in a sheltered site so I have high hopes it will survive.

I also grow a hybrid Pseudopanax that I obtained as a seedling from Hardy Exotics in Cornwall a few years ago. This has narrow leaves and seems to have *crassifolius* blood in its makeup, but is altogether a more attractive plant and bushier than *crassifolius*. This plant grows against a west wall and has been there for about 4 years now.

Pseudopanax do flower but the flowers are pretty insignificant; however seed is set sometimes and seems fairly easy to grow. The plants are not difficult to obtain from several specialist nurseries and are worth trying in any sheltered garden; if you are trying to achieve that "exotic" look in your own patch !

Northern Members Meeting

The Northern Meeting, hosted by Greg Plenty, will be held on Sunday 10th July. A light lunch will be provided. Members intending to attend, please contact Greg beforehand, so that he knows how many people to cater for.

'Hopefully there should be some Oz plants in flower as I have various Callistemons around and about and there will be plenty of other stuff to see. Some of the Eucalyptus are now 'mega' but the one I brought to the last Sheffield meeting is still barely a foot tall after many years. In some respects the garden is looking a little overgrown because I've introduced large growing plants that have done just that. I grew several Phormiums from some seed set from 'Cream Delight' about 12 years ago.

'None have grown variegated, all have tended to be *Phormium cookianum* types but have varied in size from 18 inches high and wide to 5 feet high and 6 feet wide. I'm having to get rid of some of these now, even though they look wonderful and would be worth a fortune if sold at a garden centre, but they're taking over the garden. In the palm line, I have seven *Trachycarpus fortunei* of decent size between four and eight feet tall plus three more tender species, *Butia capitata, Jubaea chilensis* and *Phoenix canariensis* that have now survived several winters unscathed. Unfortunately no Australian palms are hardy enough to grow outside around this way. There's lots more to see!

'People might want to bring plants to swap as well'.

Greg Plenty
South View Barn
The Mount
Batley
West Yorkshire WF17 9DS
Email gregplenty@svbarn.freeserve.co.

Southern Members Meeting will be held on Saturday 2 July 2003

I would like to get to know APS members in my neck of the woods so I have volunteered to organise a meeting at my home for southern members to get together to exchange views and swap information, tips and plants, just as northern members do. I have a youngish garden with around 50 Australasian species growing unprotected and if nothing else it demonstrates what can survive salt-laden winds and the not so infrequent force 9 to 10 gale; I live in Hastings. My current thoughts are to take the last northern members meeting as a model (Pentachondra, December 2004), starting mid-morning with a look round the garden (hoping for lots of advice!), followed by lunch and then either a short talk if there's anyone out there who would like to volunteer, or a visit to Hastings' Alexandra Park. This Park is a well-kept secret; it is the best local authority run park in England for rare and beautiful trees, with some Southern Hemisphere species including Olearia, Eucryphia, Nothofagus, Araucaria and Eucalyptus, as well as some Champion Trees. I would very much welcome other suggestions as well as getting an idea of what the uptake might be so if you have ideas as to what we might do, or are just interested in attending a meeting like this, please contact me on 01424 720369 or jvc4@tutor.open.ac.uk.

Judy Clark

Judy Clark
36 Collier Road
Hastings TN34 3JR

PS Nearer the time I will automatically send details to all members within reasonable driving distance plus anyone else who contacts me.

The Blandfordia Species. - Christmas Bells. (Liliaceae)

By Dennis Rowlinson

The naming and early cultivation of Blandfordia.

Blandfordia were first grown in Britain in the early 19th century as greenhouse and conservatory plants. The species were named in honour of George Spencer Churchill, who was the Marquis of Blandford in 1804.

There are 4 species, most of which have been known under different names.

The first, introduced by Sir James Edward Smith in 1804, was *B. nobilis*, the least attractive of the species, collected from the heaths south of Sydney. This was followed by *B. punicea* in 1805, from Tasmania, introduced under the name *Aletris punicea*. This was only identified correctly in 1830, and subsequently sold in the plant trade under the name *B. marginata*.

The remaining two species are from Eastern Australia and are very spectacular with as many as 20 flowers per plant. These are *B. grandiflora* from the area round the Hunter River and named in 1810 by Robert Brown, this was known under the name *B. flammea* for many years. Then in 1845 *B. cunninghamii* was named, this had been collected by Cunningham and had been thought to be a variant of *B. nobilis* but was named correctly in 1845 by John Lindley, this hails from the Blue Mountains.

Cultivation in the 19th century.

The habitat of *B. punicea* is described as wet heaths, moors and hillsides from sub-alpine to coastal areas and it requires plenty of moisture over the summer months.

These conditions would seem to apply to all the species, as they seem to have all been collected in damp areas.

There seems to have been many Blandfordia plants grown in the late 19th century gardens, in the 1880's. The suggested cultivation was as a cool conservatory plant in a peat bed. However many plants seem to have been grown in pots with a mixture of coarse sand and peat.

It is interesting how the natural conditions were emulated, as it was recommended that the watering was regular, the foliage was syringed in hot weather and they were foliage fed when coming into bloom.

Cultivation of *B. punicea* in Hazel Grove.

The plant I grow was from 1998 AGS seed collected in Tasmania. Out of 5 seeds, 3 germinated on 'Fertile' sheet and potted on. Only one of the 3 made it to a decent size the other two succumbing to one of the many rots Australian seedlings are prone to. The seedling grew to a fair size and after the foliage reached 20 cm or so it was planted out into the raised bulb bed. It is in full sun with plenty of air circulation.

Fertile' is a horticultural mat, a layer of biodegradable material, with a special absorbent gel attached to the reverse.

I consider that the construction of bed simulates the wild damp conditions it enjoys in the wild, this is a 50 cm raised bed, comprising of 10 cm rough drainage, 30 cm of 20 mm sharp gravel mixed with equal parts acid leaf mould, and then topped by 10 cm of 15 mm gravel. This gives plenty of moisture over the summer months and plenty of drainage at all times.

The bed contains many other bulbous plants and so is dressed annually with a sprinkling of '6X' feed and a new layer of gravel. This

seems to suit the plant, as the growth is very stable.



Blandfordia punicea

This clone of *B. punicea* seems to be growing much as suggested it does in the wild, apart from the flower stems which are much shorter ~ 40 cm instead of 1 metre. When flowering there is anything from 6 to 8 stems.

Jeff Irons reports that germination is immediate in the case *B. cunningham* and *B. grandiflora* - but fresh *B. punicea* seed needs one cold spell and stored seed needs two cold spells. The seed that I received from the AGS must have been relatively fresh, as it needed only one spell of chilling.

I have only grown *B. punicea* but would be delighted to grow the other two, as the flowers sound so impressive.

This would most probably mean they'd be grown in a pot as *B. punicea*, being Tasmanian, is most likely the hardiest and I would think the others would pretty marginal even in 'Sunny' Hazel Grove.

I must try to get some seed of the species mentioned above, grow them on to try them in a similar situation to *B. punicea*.

Reporting from Cheshire

By David Ormesher

I have been growing Australian plants successfully for many years in a south facing position with only a good dressing of peat and composted bark twice a year required.

I have many Callistemon which flower regularly including 'Pink Champagne', 'Father Christmas','Hannah's Child', *citrinus* 'White Anzac',*rugulosus* and *subulatus* species. We have not had much in frosts this Winter but when we do the young tips of the plants are affected.

Grevillea 'Canberra Gem' grows very well and requires some pruning each year to keep in check. Also *lanigera* 'Mount Tamboritha' and *juniperina sulphurea* have flourished and flowered for many years. *Leptospermum scoparium* 'Martini' and 'Snow White' have to be kept in check each year after flowering.

Correa alba 'Pinkie' and *lawrenceana* seem to flower right through the Winter if we have no hard frosts.

Acradenia frankliniae has been a real gem which I have had for some years and has flowered every year without fail. But my real favourite is *Lomatia silaifolia* which has creamy white fragrant flowers that are magnificent.

I bought *Lomatia tinctoria* last year but has not flowered as yet.



Acradenia frankliniae

I collect all my plants as I regularly travel the Country but my favourite nursery is Trevena Cross in Helston Cornwall where they have a superb range of plants. I bought *Banksia spinulosa collina* last summer which straight away produced orange yellow flowers and has survived this Winter so far.

Ozothamnus ledifolius flowered for the first time last year after 6 years of no flowers. Also *Boronia megastigma* is a lovely plant which flowers regularly, *heterophylla* was bought last year and will be interesting to see if it flowers this year.

I find growing Australian plants very rewarding, they do require a fair amount of attention and cannot be left unattended but I value them as they remind me of my many visits to the Continent.

BIODIVERSITY AND ECOSYSTEM CONSERVATION

By Tony Entwistle

The increasing emphasis of this in most countries may well affect us in the future, as many countries are increasingly reluctant to export their native seed.

The reasons for this are:-

(1) there is a loss of genetic material which will endanger the native ecosystem.

Comment :- this seems theoretical apart from threatened or endangered species, as the amount involved is minuscule.

(2) there is a threat to the receiving countries that some plants could become "invasive aliens" there and upset their ecosystems. This may even apply to different areas of a large and climatically diverse country such as Australia and S.Africa which have their own distinct local ecosystems.

Comment:- there is some logic in this, in that no-one can predict with absolute certainty how a plant will behave in another country. It may well be thought that this is the responsibility of the importing country, not the exporting one, and of course countries do have their own bans on seeds (as well as

plants) e.g. in the UK. grasses and Cruciferae. But perhaps with climate change uncertainty will increase. The chances of seeds from S.Africa and Australia becoming invasive in the harsher climate of northern Europe may well be remote, though not reciprocally - gorse and foxglove for example are a menace in some cooler parts of Australia e.g Tasmania. The only Australian plant which I know has become a nuisance in the UK is the aquatic *Crassula hemsleyi*.

We all know of the problems either way between S.Africa and Australia, and California from S.Africa, and we have had problems with plants from other parts of the N. Hemisphere e.g Japanese Knotweed, *Rhododendron ponticum*.

So it may become increasingly difficult to obtain seeds of Australian and S.African plants. There are already some warning signs - The Bot.Soc.of S.Af.no longer supplies seeds to its overseas members, and the Victoria SGAP no longer stocks seeds of Australian plants from non-Victorian areas which have proved invasive. There have been murmurings in the APS about the export of seed from Australia in general.

Growing seeds on sphagnum moss

Jeff Irons

Most of my seeds are germinated using a mixture of peat and Perlite. An exception is that heather relatives are always sown on sphagnum. It has several advantages over other media. The principal one is that mosses and liverworts do not grow on it. If germination is likely to take a long time or will be staggered over several years this property is almost essential, for a covering of liverwort will stop germination.

Other good attributes are:

- It absorbs a large amount of water;
- The water is held well and evaporates less quickly than from peat;
- Aeration is excellent.

How I use it:

- The live sphagnum is spread out on a cloth to dry in the sun
- When dry it is rubbed through a sieve
- A pot is half filled with my usual compost
- The remainder of the pot is then filled with sieved sphagnum
- Seeds are sown on the surface of the sphagnum
- The compost is watered from underneath by placing in a plunge bath
- The pot is stood on a capillary bed and covered with a PET bottle

After germination seedlings are handled in the usual way.

EASY PLANTS

Brian Halliwell

Callistemon subulatus occurs in New South Wales and Victoria, usually along the banks of streams, at altitudes up to 700m.

In my experience, in the South of England it was among the hardiest of all species within the genus. This is supported by the comment in the 8th edition of Trees and Shrubs Hardy in the British Isles by W.J. Bean. It is known to be hardy in the Midlands and in Teesdale. In the early years of the 20th century it was grown with other bottlebrushes as a cool conservatory plant (winter minimum 40°). Now that conservatories and sun rooms are common additions to houses old and new, they would make ideal protection for the cautious gardener, though in my opinion no protection is necessary.

In a garden choose a warm sheltered position and plant in well drained lime free soil. The foot of a south wall is ideal but do remember that roof and walls shed rain, so new plants should be watered until well established.

Books describe this shrub as having arching branches. In my experience it is rather sprawling and an untidy grower. My bush was low growing, scarcely reaching 1m (3'), though heights of up to 3m (10') are recorded. The leaves, about 2cm (1") long, are hard, pointed (subula is Latin for awl) and crowded. They remain on the bushes for several years, with some of the older ones being discarded each year. Flowering is in May or June with the bright red colour produced by prominent stamens. Following flowering, capsules are produced. They become woody with age and are filled with a mixture of fertile and unfertile seed. These capsules remain unopened for years, even decades, and their sheer numbers reduce vigour. Carry out pruning immediately after each year's flowering . Keep the bush tidy, thin out weak and crowded shoots and with a neglected bush cut back by half some of the old heavily capsuled stems. Subsequent new shoots will re-introduce vigour.

If some of these prunings are placed in a hot oven for 20 minutes (simulating a bush fire!) the capsules will open and shed their seeds. Another way to open the capsules is to place them on a sunny window sill, exposed to the summer sun. They open within a week or so. Collect, separate from the rubbish and sow thinly on a soil based ericaceous type compost, and just cover the seed. In gentle heat germination will take about 14 days. Usually germination is like the proverbial mustard and cress. Seedlings develop slowly but should be potted singly when they are

large enough to handle, usually a year later. Cuttings are easy to root, if taken in August from new growth. Keep potted cuttings under protection over winter, and plant out in late May

In Australia a form from E. Gippsland is sold as "Tonghi", and a form about 1m high is sold as "Pumila". Other selections include 'Packers Selection' and 'Demesne Benjamin'.



Pruning the plants of Australia and New Zealand

By Jeff Irons

Plants in the wild are pruned by grazing livestock, storms and fire. In the garden modifications to shape and growth have to be produced by artificial means. Often this can be done in such a way that their appearance is improved and they flower better.

All plants try to maintain a particular ratio of shoots to roots. Reduction of either will result in reduced growth of the other until balance is restored. Thus transplanting, especially when 'bare rooted', usually results in the loss of a large part of a plant's root system. It is followed by relatively little shoot growth until the root system has regrown. Similarly removing shoots by pruning results in reduced root growth while the shoot system regrows. Understanding how a plant reacts to pruning enables you to prune for the effect you want.

When to prune. Complicated pruning systems are often recommended. They can be simplified to the general rule that you prune after the plant has done what you want it to do and give it as long as possible to grow before it does it again. With flowering shrubs this means that you prune most flowering shrubs immediately after they have flowered. If a shrub is grown for both flower and fruit, confine pruning to removal of entire shoots for size control. This should be done in the spring because most antipodean plants are evergreen. An autumn pruned evergreen has thin cuticled leaves, developed in low light conditions. They are much more likely to suffer desiccation from winter winds. In mild coastal districts extension growth often continues until early December. In such areas it is possible to prune August blooming shrubs after flowering. Elsewhere they should be pruned in spring. Carried out sufficiently early it may not result in the loss of that year's foliage.

Evergreens grown for their foliage should be pruned in spring just before growth restarts. The plant will then look shorn for only a short time. On all shrubs, unless they are

wanted as ground cover, weak and untidy shoots at the base should be pruned out. This will encourage the growth of the rest of the shrub.

Another factor that controls pruning is the age of the wood on which flowering occurs. We are all familiar with Forsythia, which flowers on 2 year old wood, so that heavy pruning after flowering results in little or no flower the next year. Most antipodean shrubs flower on 1 year old wood, some bloom on the current seasons growth. Many antipodean shrubs make their flower buds in autumn, for blooming in winter, spring or early summer. They are obviously flowering on old wood. Those that bloom in late summer or autumn are usually doing it on the current season's growth.

Conifers Most flowering plants can regenerate buds, so if cut back hard will regrow. The wood of most conifers lacks this ability so conifer stumps never sucker and a conifer cut back to brown twigs with no shoots will never become green again. Conifers therefore must never be cut back too hard. Most conifers will not replace a leader and if their growing point is removed will merely extend their laterals.

Regeneration If they become too large or untidy most non-coniferous shrubs and trees can be cut down to ground level and allowed to regrow. This is best carried out in spring. Eucalyptus cut down in winter rarely regrow.

Some specific recommendations:

Banksia - cut back as necessary

Boronia – prune after flowering

Callistemon- remove all flowered growth.

Correa – cut back hard after flowering

Eucalyptus – for size control prune in mid spring. When growing plants for foliage cut a few stems when needed

Grevillea – confine pruning to what is needed to shape bush, carry out after flowering

Hebe – andersonii, salicifolia and speciosa bloom on the current season's wood. Most others bloom on last year's wood

Leptospermum – prune after flowering

Melaleuca – prune after flowering

Prostanthera - cut back hard after flowering

Telopea – cut back flowered shoots hard after flowering

Exchange & Mart

Only one member this issue with something to offer!! E & M is a great way to get rid of excess stock. Please send in your contributions for the next issue.

Tom Bramley has available : small bulbs (second year) of Eucomis pole-evansii. If anyone is interested, email tomsbramley@whsmithnet.co.uk

GUM TREES IN BUCKINGHAMSHIRE

By Frank Hytten

The garden is a 5 acre patch 700ft up on top of a small Chiltern hill, started from a 4 acre farm field in 1925 together with a one acre beech and bluebell wood. The Chilterns usually have clay caps above the chalk and in this garden the chalk is some 6 or 8 feet below the surface and the pH is about neutral. Because of a substantial shelter belt of trees planted in the 1920s it is remarkably protected from damaging winds, and because of the altitude early autumn and late spring frosts tend to roll away to the valley. Average annual rainfall is around 800mm.

The first eucalypts planted about 27 years ago were three *E. pauciflora .ssp niphophila* grown from seed, two of which survive at heights of about 15 to 20 feet; they flower profusely and are thriving. In the years since I have tried about 40 species and the following are currently doing well:

E. archeri [Archer's alpine gum]. One labelled archeri from Celyn Vale Nursery in 1987 is now 60-70ft high with a girth of 56ins at 4ft. Blakely (1955) describes it as a "small shrub or dwarf stunted tree" so archeri seems unlikely and I suspect it may be *E. gunnii*. But two E. *archeri* from APS seed are doing well.

E. aggregata [Black gum] is thriving at over 40ft after 9 years.

E. badjensis [Gully ash] . Young trees from APS seed are doing well

E. coccifera [Mt. Wellington peppermint] - 20ft and thriving after 18 years and flowers well.

E. cordata [Heart-leaved silver gum]. Seems marginally tender. One planted in 1977 was killed by the winter of 78/79, another fell over repeatedly and died, but several from APS seed planted out 2 years ago seem happy so far.

E. crenulata [Silver gum], planted 9 years ago and growing well at about 15ft.

E. cinerea [Argyle apple] - 2 years from APS seed and thriving.

E. debeuzevillei [Giant snow gum] - about 40ft high after 12 years.

E. fraxinoides [White ash] - 3 years from APS seed, 15ft and thriving.

E. gunnii [Cider gum]- about 50ft high after 16 years.

E. kybeanensis [Kybean mallee ash] - 12ft after 8 years.

E. nicholi (Blakely) E. nicolii (Plant finder) [Nichol's willow-leaved peppermint] At 5 years, this, a third try, is doing well, but tends to be savaged by deer.

E. parvifolia [Small-leaved gum] - about 40ft after 12 years.

E. pauciflora ssp niphophila pendula [Snow gum]. This variety of niphophila, said to have come from a single parent at Kiandra, NSW., does not seem to me to be much different from the type. It is about 50ft after 14 years.

E perriniana [round-leaved snow gum; spinning gum] . About 35ft after 13 years, I also have an 8 year old which I cut back to the ground every 3 years to maintain the juvenile foliage so that visitors can see why it's called a spinning gum.

E. pulverulenta [silver-leaved mountain gum] - 2 years old from APS seed.

E. rubida [candle bark gum] - about 25ft after 5 years.

E. subcrenulata [crenate-leaved gum] -15ft after 13 years.

E. vernicosa [varnished-leaved gum], a small tree, about 12ft after 8 years and thriving.

E. urnigera [urn-fruited gum] - cut back after falling at about 9 years -8ft of regrowth after 4 more years.

Eucalypts do well here and I intend to try more species although they are competing for space with a variety of other trees, including collections of Acer and Salix. They are a great asset, particularly in the winter with attractive smooth cream or variegated trunks, and leaves which look almost metallic when moving in sunshine. Is it because Australia is upside down that they hang onto their leaves and shed their bark instead?

One problem is that eucalypts tend to be shallow rooted (do they have deeper roots in drier countries?), and because they grow so fast often fall over. They can be winched back and propped up, but I find it more satisfactory simply to cut them off just above ground level and let them shoot again which they willingly do.

Reference

Blakely, W.F. (1955) A Key to the Eucalypts 2nd edition. Forestry and Timber Bureau, Canberra.

Bogong Daisy-bush

By Jeff Irons

Earlier this year I bought an excellent book- **"Gardening on the Edge".** Two of its contributors are APS members, a fact which on its own ought to recommend it to other members of the society.

When reading I was surprised to find that the Bogong Daisy-bush was mentioned as a delicate plant, suitable for places with mild winters. My surprise came because for many years a tub grown specimen of this alpine species, botanically *Olearia frostii*, has been prominent outside the entrance to the glasshouses at the RBG Edinburgh.

Although described in reference books it is rarely available at nurseries and is not in the 2004-5 Plant Finder. Regularly in the APS seedlist, there is little demand for it.

The Bogong High Plains are an area of Victoria with an inverted tree line. Cold air from the surrounding mountains falls to the broad valley bottom, giving them an alpine climate. Although the plains themselves are treeless, the wet slopes immediately above are covered with *Eucalyptus stellulata* and higher up, where drainage is better, the dominant species is *E. pauciflora.*

Olearia frostii grows on the plains as a summer flowering evergreen shrub, with greyish leaves, about 50cm high. Usually lavender, its flowers can be pink or white and in cultivation white flowers often change to lavender as they age.

Rob Senior records that in south west Cornwall plants are often short lived, so that continuity can only be assured by constant propagation from cuttings. Perhaps this is one of those species that prefers a cooler climate and actually grows better in northern areas.

Why not give it a try? Most seeds will germinate immediately, a few will wait until winter is past before they germinate. Ecologically minded gardeners will keep and grow on both kinds of seedling so that when they collect seed it will be from several plants, not just one, and will maintain the natural survival pattern .

HARDINESS OF AUSTRALASIAN PLANTS -- A 15-YEAR SURVEY

By Tony Entwistle

My garden is now 15 years old, and though new plants have been added since, this relates only to those originally planted.

There have been no very severe winters over this period, as compared with those of 1941, '47, '63, '78 and '88. The garden is 220 ft above sea-level, but though only some 20 miles from the Wirral peninsula e.g. Ness Gardens, is much colder than there. Lowest temp recorded -11°C.

Category 1. Plants unaffected or virtually so in any winter.

Richea scoparia, Prostanthera cuneata, Tasmannia lanceolata, Callistemon subulatus and *C.* "Yellow Queen", *Phormium tenax* and its plain purple form, many Hebe hybrids with *salicifolia* blood, and dwarf cvs, *Eucalyptus gunnii, niphophila, Grevillea* "Canberra Gem", *Melicytus angustifolius, Hoheria lyallii, Brachyglottis* x "Dunedin", *Eucryphia lucida, Olearia macrodonta, Podocarpus alpinus, Ozothamanus rosmarinifolius.*

Category 2. Plants damaged to a variable extent in some winters, but all recovered well.

Acacia dealbata, A.retinoides, Ceratopetalum gummiferum, Olearia scilloniensis, Phormium coloured hybrids.

Catergory 3. Plants completely killed in some winter during this period.

Grevillea juniperina, Olearia phlogopappa , 0. zennorensis, Banksia integrifolia, Leptospermum scoparium cvs, *Callistemon citrinus* cvs, *Pseudopanax arboreus, P ferox, Hebe speciosa* hybrids, *Pittosporum tenuifolium* cvs, *Clianthus puniceus.*

HOW DID YOU START?

By Tony Entwistle

It seems to me that it would be of interest to members to hear how individuals became interested in Australasian plants. We are, after all, rather 'rarae aves', and will have different stories to relate. So here is my history, in the hope that it will encourage others to do likewise.

It proved in fact to be more difficult that I had envisaged, a sort of "recherce du temps perdu" having to delve deep into long-forgotten memory circuits, some of which seemed to have already emptied from my "recycle bin".

The seeds were sown, both metaphorically and literally by Thompson & Morgan. We moved in 1935 to a house with largish garden in Liverpool, and I became a keen gardener. At the age of 8 I began, perhaps precociously, to send for seed catalogues, having discovered that in those days if you did not seal a letter it only cost 1/2d postage (that is 0.21p today!). The thirties catalogues were huge in content, but no colour. Anyhow, in 1939 I obtained from T&M a packet of *Callistemon linearis*, price 6d, a whole week's pocket money; the plants I raised were with me for some 40 years before I lost track of them and I still have their seedlings (they were much later identified by Wisley as *C. subulatus*).

There then followed a hiatus of some 20 years - first the war, when we were all busy "digging for victory", then National Service, medical school, hospital years, settling in practice, marriage etc . But I had as a teenager joined the RHS, or to be correct became a Fellow - in those days you could not just "join", but had to submit a cv and a testimonial from an existing Fellow!

Around 1960, I "got the itch": responding to some advert I bought seeds from the WA Forestry Dept and some books from Perth, much easier then when Australia was also £sd!

I advertised in Australia for a pen-pal, and successfully befriended a doctor in Melbourne, a friendship which was to last for over 20 years, with exchange of seeds, books and photographs. I joined the SGAP (the then Vic and Tas branch) whence I made new friends in WA and Tasmania. All these friendships led to reciprocal visits, and I have now visited Australia four times.

I would mention that I never possessed a garden until I retired, but my parents had moved in 1952 to a house and large garden on the Wirral coast, where I was able to grow many Australian plants. At one time I had a large collection of Victorian Eucalypts, but most died in the winter of '78. Also memorable to me was the Australian garden at the Liverpool International Garden Festival in 1980, much admired by my Australian guests with me at the time.

Then in 1987 Jeff Irons got the names of all the UK members of the different state branches of SGAP and asked them to meet at Kew. Over a dozen attended, and from this the Australian, later the Australasian Plant Society was formed - and the rest is well known to most of you.

So that is my story. I would say in conclusion that I am not at all obsessional about Australian plants, more a general plant-lover, but I particularly admire those plants which are unique to Australia, such as many of the Proteaceae, Myrtaceae, & Epacridaceae.

In re-reading this, I should perhaps apologise for the nostalgic digressions- a sure sign of senescence!

Winter 04 - 05 in Horsham, West Sussex

by Jeff Layman

It's the first weekend in December. I thought I'd have a look outside to see what is - or isn't – going on in the garden.

Nothing Australian seems to have died so far, but that's not too surprising as we have only had one or two minor frosts here in Horsham. In fact, some of the bedding plants (lobelia, pelargonium, fibrous begonia, and even gazania) are not just surviving, but still flowering! *Grevillea rosmarinifolia* (I'm not convinced it is this - may be a hybrid as it is so vigorous) is covered in buds, and may be coming into flower. This is somewhat earlier than usual, as it's normally in mid to late January that it starts. *Melaleuca violacea* has a couple of flowers on it. It seems to have had a few flowers on it for most of the year. There is nothing else outside in flower.

The *Solanum laciniatum* has no flowers, but still has quite a few fruits. I started several from seed in Spring 2002. I originally put one out, about 5 metres from the house, in August 2002 with only some evergreen shrubs for protection over it. It died during the winter. The fruiting one remained in the greenhouse over that winter, and I put it out, about 20 cm from the house SE-facing wall, in late May 2003. It grew well, despite sharing the same small patch of earth with a well-establish Wisteria, and a couple of *Anigozanthos flavidus*, and had a few flowers and fruits that year. The mild winter of 2003 - 4 didn't appear to bother it, and it took off this spring. The plant is now 3.5 metres high. It has had dozens of flowers and fruits. The latter are rather messy as they fall off when ripe. As for the flavour, well, it is nothing to write home about.



Solanum laciniatum

In the frost-free greenhouse, a couple of *Hakea clavata* are in flower again. That's the third time this year. The first was in late Feb/early March, then again in June/July, and they started again in late October. Strange behaviour, I must say. I've tried cross-pollinating, but no fruits yet., Perhaps they are the same clone, as they were germinated many years ago from the same pack of seeds.

The most surprising thing I discovered was a small pot with some just-germinated seedlings in it. Why? Because they were *Boronia megastigma*. I've tried for years to get these seeds to germinate, but without success. These were Chiltern seeds sown in February this year, and no doubt put straight in the heated propagator. I expect they remained there until I cleared it out in early June. All ungerminated seeds were left out in the garden on the paving near the greenhouse, and I forgot about them. Well, I thought I'd put any "tender" plant seed pots in the greenhouse, but it seems I missed the Boronia. Serendipity, perhaps, as there are 4 seedlings coming up. Well, I assume that they are *Boronia megastigma*. Time will tell, if they survive. The pot has now been put in the greenhouse.

A last look round, with a rueful glance to where the *Eucalyptus rodwayi* once stood. This year I cut it down. From seed sown in spring 2000, it had grown to over 6 metres high by August this year. When I first got seeds, I am sure that I checked up and thought it was a small tree - maybe 10 metres after 10 years. When I found out it was a 45 metre job, it had to go. Pity, as it had lovely, almost bamboo-like, foliage. I still have a few small plants which I will keep for the foliage, as my wife likes it for flower arranging.

It's now early January. The *Melaleuca violacea* has no flowers, but is otherwise unmarked by a couple of -4°C frosts. The *Grevillea rosmarinifolia* hasn't advanced much; the buds remain tight. In the greenhouse, the *Boronia megastigma* also just sits there - but at least it hasn't died yet. Most odd of all is that one of the *Anigozanthos bicolor* which I split up last autumn is now well in bud. None of the others are showing any buds. My remaining *Anigozanthos manglesii*, on the other hand, is showing a lot of Black Ink disease. No sign as yet on any of the *A. bicolor*. The *Hakea clavata* is still in flower.

The *Solanum laciniatum* shows no signs of any frost damage.

Early February. January has been just about frost-free. Some of the bedding has passed on, but there are still a few flowers on some of the remaining begonias, pelargoniums, and gazanias. Seems strange to see them competing in the pots with irises, crocuses, and early daffodils!

Buds have started to break on the *G. rosmarinifolia*. There are lots of new leafy shoots on the *S. laciniatum*. So if there are no heavy frosts from now, it may well have survived unscathed. Goodness knows what height it may attain this year! In the greenhouse, the *A. bicolor* is flowering well, and another couple have good-sized buds. The *A. manglesii* is well-covered in black; I can't see it surviving. But none of the *A. bicolor* next to it has any sign of the fungus. Nor have a

few plants of *A. bicolor* in another frost-free PVC greenhouse. But one or two in an unheated PVC mini-house are showing signs of the fungus. I wonder if it is exposure to cold which allows the infection to get going.

The *Hakea* is still flowering. Next to it *Grevillea* 'Robyn Gordon' has several buds. I'm tempted to leave one of the *H. clavata* outside next winter in a well- protected spot just to see how it gets on.

Late February. The *A. bicolor* is going strong. Even one of the plants in the mini-greenhouse has a bud on it - despite the fungus. In the greenhouse, *Kennedya nigricans* is coming into bud. A cold week is forecast.

Early March. It's been a cold week. Every night below freezing, with one at -6°C. Even a touch of snow on occasion, though nothing like further north (or east - Kent and part of East Sussex have had it bad). A little frost damage on a few of the *Solanum* leaves. The *A. bicolor* in the mini-greenhouse seem OK, but the flower spike is keeling over. According to the max-min thermometer just by it, the temperature fell to -5°C. Everything else Australasian seems untouched, even those with no wall protection. In fact, apart from just about seeing off the end of the bedding, the cold weather has had remarkably little effect. Or so it seems; maybe any damage will only show when the plants come into growth. Signs of the first true leaves are showing on the 3 remaining *Boronia*. I live in hope! The *Hakea* is still flowering. It should be grown more.

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SNIPPETS

by Tony Entwistle

1. A lady from Manchester has been referred to us by Gardeners Question Time and is anxious to obtain Macropidia fuliginosa (Black Kangaroo Paw) : if any member can help please contact Anne Ashton, 27 Lyndhurst Ave, Irlam, Manchester M44 6HS

2. The cost of Kirstenbosch "Instant smoke plus" seed primer papers has risen considerably, now costing R 64 for a pack of 5, which at the current rate of exchange is over £1 per paper. So I would recommend you make you own "smoky water". Perhaps some entrepeneur could start this here as a business! - after all, smoke treatment has been shown to improve germination of even a lot of vegetable seeds!

3. I know that quite a few members already belong to one or other of the state branches of the Australian Plant Society (SGAP), and receive both the quarterly state newsletter and the national Australian Plants magazine - this costs around $45-50 pa, but you can subscribe to the magazine only for $32 pa, includes postage. Apply to the ASGAP secretary Dick Burns, 17 Deviation Rd, Penguin,Tasmania 7316.

Kings Under Threat

By Mark Short

Eucalyptus marginata, commonly known to Australians as Jarrah.

This is the tree that I regard as the king of the West Australian bush, towering over the middle & understoreys with great authority. Its dark brown to almost black bark, with its fine narrow leaves that allow a few rays & flecks of sun shine to pierce through the canopy, bounce around to highlight the leaves & at times casting them into shadow creating eyrie silhouettes. I remember driving through a Jarrah forest a few years ago now & being blown away by the enormity & beauty of these trees. Trees that have stood for well over five hundred years, some are thought to be well over a thousand years old & yet these ancient giants of Australia are under a very dark cloud of concern.

Since the 1860's they have been a main target for logging, as the timber that is produced from these trees is one of the most beautiful in the world, along with being one of the most durable & resistant. Jarrah produces resins within its wood that makes it extremely resistant to all types of extremes; fire, termites, marine borers & most acids, that is why it makes an ideal timber for outdoor furniture. In fact, it was so resilient that it was used by Australia's early pioneers as a substitute for steel, it was ideal for the construction of jetties, bridges & railway sleepers. It was even exported to London & Berlin, where it was used as a road surface. The timber of a fully mature tree is deep red; almost purple in colour, the younger the tree the lighter the timber will be. Very young trees produce a timber that is blonde. It is this mature timber that is widely sought for use in fine furniture & artistic wood working. It will produce a very straight grained timber, but has the potential to produce crossing & interlocking grains, that give a fiddle back appearance. Jarrah also makes good firewood, because of its durability, it will burn slowly & produce a great amount of heat. It is this last use for the timber that truly breaks my heart – what a waste, what a pathetic excuse for such an old & beautiful tree to be cut down, at least if the tree is used for furniture or wood turning it's beauty can be admired. Not that this is an acceptable excuse either. Now please do not get me wrong, what I write about here is the constant (over logging) of these old growth forests. I see nothing wrong with sustainable plantations, or a small amount of selective logging from old

growth forests in order to "clear out" trees as a way of regenerating the forest. It is the complete clearing of these forests in an area that I do not advocate. The down side to growing *E. marginata* as a plantation timber is that it takes 200 hundred years to reach maturity, unlike other species of tree that are commonly used as plantation trees that are mature in around 40 to 80 years. Unfortunately the majority of people that seek Jarrah timber aren't willing to wait this long, & as we know where there is demand, supply will follow, causing the loggers to plunder the ancient stands of trees.

The second &, what I would class as the greater threat is *Phytophthora cinnamomi.* This is a root rot fungus that has devastating effects on *E. marginata.* Where jarrah is normally pretty resistant to fungal infections, *Phytophthora cinnamomi* seems to find a way in. This fungus has zoospores that are motile in water, making the fungus very suitable to the south west of W.A. as it can be rather wet down there at times. But this is not the main, or quickest way that the fungus spreads, it is actually by vehicles & shoes, contaminated soil is picked up in the treads of shoes & tyres & gets transported quite quickly to other sites. This is where the other down side to logging activities comes into play, the machinery that has finished working at one site will then be moved to the next taking contaminated soil with it in it's tyres taking the fungus to another stand of trees.

As strange as it sounds, its not the fungus that kills the tree, but the tree itself. What happens; is when the zoospores & oospores enter the tree via its root the tree detects a foreign organism & begins blocking of its Xylem (the tubes that take water & nutrients up the trunk from the roots to the canopy) in order to stop the fungus moving up the tree. But off course if these tubes have been blocked & there's not water & nutrients going up, there will be a few ingredients missing for the whole photosynthesis & respiration processes. The first signs of infection are seen in the crown, when it starts to wilt & turn brown. At later stages it is possible to see the rot in the butt of the trunk.

Luckily the West Australian Government are taking these problems seriously by putting restrictions on logging activities, along with introducing & enforcing good practices of hygiene with the hope of limiting the spread of *P. cinnamomi.* Scientists are also looking into the

resistant properties of *E. calophylla* to hopefully make genetic transfers to create a resistant form of *E. marginata*. When seedlings are planted they can be planted with species of Acacia like: *A. pulchella*, *A. alata* & *A. extensa*, this will promote mycorrhizal activity in the soil & somehow helps the jarrah to resist the fungus. But the other important thing is that the world cut's down on its requests for *E. marginata* timber & start to realise the seriousness of this fungal disease & respect the hygiene measures that are being put into place.

This species of tree only grows in the South West of Australia & nowhere else in the world; they are an integral part of the Australian bush, the older tree with hollows providing homes for 4 species of mammal & 14 species of bird & native bees all year round plus other species using them occasionally during the year. The bees also rely in the nectar from the whitish/cream flowers that are produced from September to February. Fallen trees provide protection & homes for Numbats & other ground dwelling mammals, they also provide protection & nutrients (by way of fallen, decaying leaves) for the understorey, being mainly *Banksia sp.*

Of the 2.5 million hectares of forest left in W.A. only 347,000ha is old growth forest & only 232,800ha of this is protected from logging, now in terms of the scale of Australia this really isn't much. It is my hope that these magnificent trees are helped & given the chance to be left in peace without threat from loggers & disease so that one day my children will also be able to stand there with, & be in awe of the Kings of the forest.

Experiences with Western Australian eucalypts in a Kent winter

John Purse

The vast majority of the *Eucalyptus* species that have spectacular flowers are shrubs or small trees native to Western Australia (WA). Unsurprisingly, given the climates in that State, they are commonly regarded as relatively tender and likely to succumb quickly to the cold and damp conditions of a winter in Britain. Thus, they are not usually viewed as offering much prospect as ornamentals for the UK, even to an enthusiast, and especially not to one who lives in north Kent. However, my own observations, and comments from a range of people, suggested that they would not necessarily be impossible to grow, and 12 months of experience with a range of

species has convinced me that I should persevere with several.

My garden is on the North Downs in Kent. It is south-facing but exposed, about 80 metres above sea level and 15 km from the North Sea - a part of Kent notorious for heavy snowfalls and cold spells in winter. However, summers tend to be both sunnier and drier than elsewhere in Britain - one result is that there is a small vineyard nearby that has been in existence for 25 years. The winter frosts and snow mean that the climate differs from any location in WA. However, that aside, the climate of the coast of the extreme south-west of WA is not too different, with warm sunny summers and cool, cloudy and damp winters.

Species native to the coast of south-west WA are unlikely to be suited to gardens in Britain. The spectacular red-flowered gum (*Corymbia ficifolia)* clearly falls into this category - the very few reports of this species flowering in the British Isles are all from extremely mild locations. But the species from elsewhere in WA that are grown successfully in gardens on that coast offer more clues as to what might be better-adapted.

Many eucalypts from inland locations in the southern part of WA have modest levels of frost-tolerance. This is well-documented, and is presumably a response to the occurrence of radiation frosts at night in their native habitats. However, the daytime conditions in these habitats are generally sunny, with low winter rainfall and hot, dry summers. Yet some of these species seem to be quite happy in suburban gardens along the coast, and in other locations far to the south and west of their native habitats. Perhaps the most striking of these is *Eucalyptus caesia*, which is native to the wheatbelt east of Perth. The subspecies *magna* is widely-grown throughout the warm temperate parts of Australia as 'Silver Princess', a small tree with pendulous silver-grey stems and foliage, and spectacular red flowers.

I raised seedlings from a range of WA eucalyptus species, and *E. leucoxylon* (a species from South Australia and Victoria that is widely-grown as an ornamental in WA) in 2004. Some were raised for me by a nursery in Portugal, and I brought these to Kent at the end of May. I raised more from seed sown in Kent in May, using the 'bog' method on sunny windowsills. This method was very successful. The plants were transferred to pots containing a free-draining compost (1:1 soil-based ericaceous: perlite) and kept outdoors. They were hand-watered with mains water, which is from the local chalk and hence very 'hard', supplemented with liquid feed formulated for tomatoes. All thrived, and *E. caesia ssp magna* lived up to its reputation for being very vigorous when young.

I put the pots in various locations in the autumn, to get an idea of how they would fare over winter with different degrees of protection. There were three basic types of location: outdoors in open cloches or against walls, within closed but well-ventilated glass cloches, and within a greenhouse with heat to provide frost protection. Most of the winter was quite kind, with minimum temperatures until mid-February falling to only -3.5°C at soil level and within the cloches. Then winter really arrived: we had several snowfalls including 30 cm that lasted for 3 days. Air temperatures dropped below zero every night for two weeks, with the lowest being -7°C. The snow was probably a blessing for the plants under cloches, as the cloches were completely buried and the night temperatures within did not drop below -2°C.

The majority of plants of most species have survived! Of the species held mainly under cloches, all the *E. macrocarpa* (Mottlecah) and one seed source of *E. preissiana* (Bell-fruited mallee) appear totally undamaged. *E. erythrocorys* (Red-cap Gum) suffered some damage in December but is now looking quite happy. Only *E. tetragona* (Tallerack) and *Corymbia calophylla* (Marri) were badly damaged, and it is interesting that both these are predominantly found near the south coast in WA and so may not have encountered selection pressure for frost tolerance.

The majority of the plants outside were larger specimens, 60-80cm tall, mainly *C. calophylla, E. caesia ssp magna,* and *E. leucoxylon ssp pruinosa* and *ssp megalocarpa.* The first of these was badly damaged by the end of December, but the other subjects happily endured frosts, and light snow that froze to the leaves, seemingly without damage. The heavier frosts and snow in early March damaged the shoot tips of many of these plants, but the majority of the plants still look in reasonable condition. Overall, *E. caesia* fared better than *E. leucoxylon* , despite some stem breakages caused by snow on the former.

The plants in the greenhouse all survived, as might have been expected. Inevitably, insect pests also thrived best in the greenhouse, although *E.preissiana, E. tetragona* and *E. erythrocorys* seem to be immune to the psyllids and aphids inhabiting the shoots of adjacent plants.

What messages might be drawn from these preliminary observations? Without more experience, I will only highlight two possibilities. Firstly, the ease with which *E. caesia* can be grown, its apparent modest hardiness, and its ability to cope with the cool, damp winters on the south coast of WA, suggest that it may be worth trying this outdoors in milder parts of Britain. Places where *E. leucoxylon* has succeeded and flowered (which include some surprising spots!) would seem to be good possible

locations. It will always be a risky subject at best, but success would be very spectacular.

Secondly, the potential for certain species to be grown in Britain in large containers may repay some further investigation. The suitability of certain eucalypts for containers has been noted elsewhere in the world, and a few species appear to initiate flowers while still small. The apparent freedom from insect pests of species in the sub-genus *Eudesmia* (which includes the Red-cap Gum and Tallerack), suggests that this group might be particularly rewarding for growing in containers outside in warm, sunny spots and being over-wintered in a cool conservatory.

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Exchange & Mart

Don't forget that E&M is a great way to swap seeds and young plants. So this summer, if you have surplus supplies, send in your offers to Pentachondra.

Growing Banksias continued from page 20

Recommended species include:
* used for cut flower production
Reasonably hardy, for outdoor cultivation: *canei, integrifolia, marginata*

Indoors

species	Flower colour	Size (unpruned)
aemula	Greenish yellow	3m
aquilona	An indoor species similar to *integrifolia*	
baxteri	Yellow green	3m
blechnifolia	Red to salmon	0.5m
**coccinea*	Grey & scarlet	3m
cunninghamii	yellow	3m
ericifolia	Orangey red	3m
**hookeriana*	orange	2m
media	yellow	3m
**menziesii*	Red changing to gold	5m
monticola	An indoor species similar to integrifolia	
spinulosa	Golden yellow	3m

In Australia there are now some dwarf selections. So far they are not available in England. In case they do arrive names to look out for are 'Birthday Candles'(*spinulosa*), 'Austraflora Pygmy Possum' (*serrata*), 'Roller Coaster' (*integrifolia*). A dwarf selection of canei called "Celia Rosser" was never sold commercially and appears to been lost to cultivation.

Aussie Pack

There are just 6 copies of the Aussie Info-Pack left (2003 issue). Full of plant info, they are a bargain at just £2 per copy. Well worth a space on your book shelf. To obtain a copy, send your cheque, made payable to the Australasian Plant Society, to Tony Entwistle (address inside back cover).

Q&A

Q Why do florists call *Acacia dealbata* Mimosa?

A Possibly because the flowers are something like those of *Mimosa.* What is interesting is that although several species of *Acacia* were briefly called *Mimosa, A. dealbata* was not one of them. It is just as obscure why they were ever called *Mimosa.* The name comes from the Greek word Mimon, which means mimic and is a reference to the way *Mimosa* leaves close when touched. It was used as an analogy to the way people recoil when touched on their skin. No *Acacia* behaves in that way and some of those called *Mimosa* did not even have bipinnate leaves.

Plant names

There are several instances where the APS uses names different from those in the Plant Finder. This is because the society uses the names under which seeds have been received and so follows Australian and New Zealand usage. Some of the commoner differences are listed below, together with the reason for the difference.

Restio/Baloskion Botanists agree that *Restio* should be an African genus. Because of this the plant that was known as *Restio tetraphyllus* has become *Baloskion tetraphyllum.* This name was first given in 1845.

Chionogentias This is the current name for the Tasmanian plants that used to be called *Gentianella.*

Chordospartium This is now included in *Carmichaelia*

Diplarrena This is the earliest spelling.

Drimys This genus is confined to South America. Australian plants formerly known as *Drimys* have had their earlier name *Tasmannia* restored

Heliohebe Early on in the speciation of *Hebe* some plants split away and developed very differently. In 1993 they were transferred to the new genus *Heliohebe.*

Helichrysum bellidioides is now *Anaphalioides bellidioides.*

Melicytus New Zealand plants of *Hymenanthera dentata* have become *Melicytus flexuosus;* the Plant Finder calls them *M. angustifolius.* High level plants of Australian *H. dentata* are now called *Hymenanthera sp.* 'Snowfields'. It may become a *Melicytus.* Low level ones are still *H. dentata.*

Notospartium is now included in *Carmichaelia*

Olearia The NZ botanist Michael Heads raised some varieties of *O. virgata* to species rank in 1998. *O. virgata var. laxifolia* has become *O. laxifolia. O. virgata var. lineata* has become *O. lineata*

Ozothamnus While agreeing with the Danish botanist Arne Anderberg that the New Zealand shrubby helichrysums should not be in that genus, New Zealand botanists

do not accept that they are in *Ozothamnus*. To avoid changing their names twice, they have decided not to call them *Ozothamnus* but to keep on using the names *Helichrysum coralloides, intermedium, selago and tumidum* until these plants are assigned to a new genus.

Derwentia differ from *Parahebe* in several ways. The name dates back to 1836.

Veronica formosa. This species is not a *Derwentia,* neither is it a *Parahebe.* In 1992 Briggs and Ehrendorfer proposed the temporary use of "Formosa". This was not accepted by other botanists and both the census of the Vascular Plants of Tasmania and the Australian Plant Names Index retain the name *Veronica formosa* for the time being.

*****

Correas in the Garden

By Dennis Rowlinson

I have been growing Correas in pots for some years now and, as a plant has got too large for it's pot, I have to make the decision what to do with it. So over the last few years I have decided to try these plants outside.

C. alba was the first plant to be tried - the plant was rooting through its 10-inch pot so out it went into the side bed of the front garden where it soon started to grow away. This was such a success, that I planted out a rather large C. backhousiana that was beginning to look out of balance in its pot. I was told and had read that this is supposed to be the hardiest of the species but, as the garden has been down as low as -12°C quite a few times, it may not have been able to cope.

The following winter the temperature went down to -14° and both plants sailed through it all. The following spring out went C. mannii and C. 'Marion's Marvel' which were both quite small plants at the time. They also enjoyed the freedom to stretch their roots and have now started to make fine shrubs.

C. mannii is a bit straggly at the moment but I hope to tie the offending branches in to tidy the plant up. It has the usual (I find for Correas) continual flush of flowers most of the year.

C. 'Marion's Marvel is a very neat grower and also flowers most of the year.
C. alba does the same flowering trick, but C backhousiana seems to be quite shy in the flower department. Perhaps a member knows why it is - as it gets the same amount of sun as the others and the soil is the same.

With the success with these plants this year I intend to try C. 'Ivory Bells', C. 'Mary', and C. 'Pinkie' to see if they can cope - I'm sure that they'll make a fine show.

I'll wait another year before trying C. pulchella and C. 'Dusky Bells' as, not only do the plants look a bit softer to me, but my cuttings are not struck yet and I'd hate to lose my main plants.

It is now the end of January and the Correa flowers on front side bed are very good to look at in all the gloom so I would recommend that people should try them outside, even if your garden is a bit cold. The 'Global Warming' syndrome might pull them through.

If it all goes wrong - blame my advice and ask me for a replacement plant, as mine must be harder clones.

Thank you once again, to everyone who has contributed to this issue. Without you, there wouldn't be a newsletter.

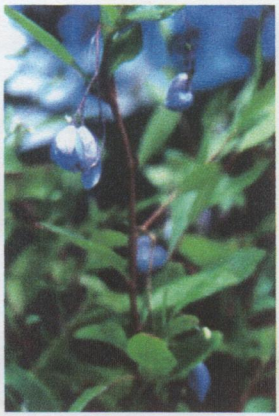
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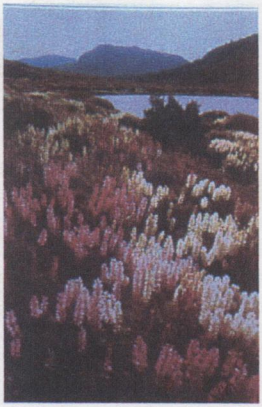
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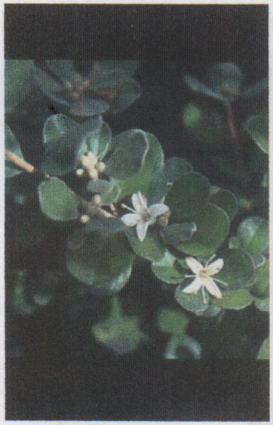
Bland-
fordia
punicea



Sollya
hetero-
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Richea
scoparia



Correa
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