AUSTRALASIAN PLANT SOCIETY
NEWSLETTER

PENTACHONDRA

ISSUE 43 DECEMBER 2009



Brachyglottis brunonis
Tree Groundsel

AUSTRALASIAN PLANT SOCIETY

Newsletter Number 43

DECEMBER 2009

CONTENTS

Editorial, Judy Clark	1
Forthcoming meetings	2
APS News	3
Celery-top Pine, Jeff Irons	6
Brachyglottis brunonis, Gary Dunlop	7
Melalleuca lucky dip, Jeremy Spon	11
Grevillea x semperflorens, Judy Clark	12
Acacia verniciflua, Jeff Irons	13
Acacia dealbata, Brian Halliwell	14
Ozothamnus: hookeri or cupressoides?, Jeff Irons	15
Update on Australian ferns in West Cork, Phemie Rose	15
Progress at Kerrachar, Peter Kohn	16
Hardy or Tender, Tony Entwistle	18
Updated winter report from Horsham, Jeff Layman	25
Taking cuttings, Jeremy Spon	25
Book review: Eucalyptus, Frank Hytten	26
Ventnor Botanic Garden, Jeremy Spon	27
AGM report: Chester Zoo, Sue Catchpole	28
Northern meeting report: Quinta Arboretum, Amanda Kershaw	29
Southern meeting report: Bedegbury Pinetum, Judy Clark	30
Letter from Australia, Nicky Zanen	34
Bits and pieces: Jeremy Spon, Frank Hytten, Judy Clark	36
Minutes of the APS Annual General Meeting 2009	38

©AUSTRALASIAN PLANT SOCIETY 2009

CONTACTS

President	Jeff Irons 74 Brimstage Road Heswall Wirral CH60 1XG Tel : 0151 342 1703 president@anzplantsoc.org.uk
Chairman & Webmaster	Keith Larkin Chadshunt House 5a Lillington Road Leamington Spa Warks CV32 5YS Tel : 01926 422596 webmaster@anzplantsoc.org.uk
Secretary	Jeremy Spon 1 Iffin Cottages Iffin Lane Canterbury Kent CT4 7BB Tel : 01227 780038 secretary@anzplantsoc.org.uk
Treasurer	Aubrey Wood Fairfield Main Road Baxterley CV9 2LN Tel : 01827 875887 treasurer@anzplantsoc.org.uk
Newsletter Editor	Judy Clark 36 Collier Road Hastings East Sussex TN34 3JR Tel : 01424 720369 editor@anzplantsoc.org.uk
Seed Manager	Richard Christmas Osborne House Wrexham Road Pen-y-ffordd Chester CH4 0HT seeds@anzplantsoc.org.uk



Autumn in the Dandenong Ranges, Victoria

EDITORIAL

Judy Clark

Tony Entwistle's adaptation of Pope's "Hope springs eternal ….." (see page 18) reminds me that one of the things I love about gardening is how easily I manage to forget the effort put into things that in the event didn't work in the excitement of planning for the future. There are plenty of beautiful Australasian species that will happily survive conditions at least somewhere in the British Isles and experimenting to find those which like the conditions somewhere in my garden is all part of the fun.

Some species, of course, are not hugely fussy but it can be surprising just how tolerant some are. For example *Acacia melanoxylon* (Blackwood) and *Dianella tasmanica* (Tasman Flax Lily or Blue Berry) both grow and flower in the heavy soil of my relatively dry south coast garden. They also thrive in the wetter peaty conditions at Kerrachar , Peter and Trish Kohn's garden in the north west Highlands of Scotland (see page 16). On the other hand, I don't have any constantly damp places in my garden, so even at my most enthusiastic I have to be realistic and remember that the tree ferns that Phemie Rose writes about (page 15) are unlikely to thrive there, however much I might like to have one.

Another plant that seems a less than likely candidate for my garden is Celery-top Pine (*Phyllocladus aspleniifolius*). Jeff Irons (page 6**)** tells us that in the wild this striking tree grows in temperate rainforest with an annual rainfall of one to three metres. Despite what may well prove to be a record breaking November in terms of precipitation the annual average round here is only 75 centimetres. Nonetheless, having been offered a plant following the 2009 southern meeting at Bedgebury Pinetum I couldn't resist trying it out.

Talking of meetings, the 2010 AGM has already been arranged (see next page for details**)** and as usual there are plans for northern and southern meetings as well. APS meetings are a great opportunity not only to visit interesting places but also to meet other members and make new friends. I hope the reports on the 2009 meetings (pages 28 – 30 and 33 - 34**)** will encourage those of you who have not previously attended one to do so in 2010.

If you can't get to a meeting because the all venues are too far away could you offer to arrange a visit to a garden or nursery in your part of world? For example, southern meetings have so far been confined to south east England because those are the areas that those of us who organise these meetings know well enough to do so. I'd love to go further afield and I'd be happy to help if there's a member out there willing to make an offer.

Even so, it does have to be admitted that small societies such

as ours, with a geographically widespread membership, are probably always going to struggle to get members together. But another way of meeting other members is to invite them to drop in on you. You can make known your willingness to receive visitors in Pentachondra; just send me a note with relevant details.

We may be a small society but I remain truly amazed at, and deeply grateful to, the numbers of you who take the time to put pen to paper to contribute to Pentachondra. In fact so much arrived for this issue that I have to apologise to those who responded to the winter hardiness survey in issue 42 that there isn't the room in this issue to include a report on it. This does, on the other hand, give more time to anyone who would like to send in data but hasn't got around to it yet. Meantime, keep those articles coming – Pentachondra wouldn't be what it is without them, or rather you.

❀❀❀❀❀❀❀❀❀❀❀❀❀❀

FORTHCOMING MEETINGS

Annual general meeting Saturday 1st May 2010

Our 2010 AGM will be held at the Botanic Garden of Bristol University on Saturday 1st May. This may seem a long time ahead, but it will come round all too soon, and (be warned) it will come round before the May 2010 issue of Pentachondra comes out. So please put the date and all the details in your 2010 diary now (or as soon as you get one!).

The Garden is a fairly recent creation but one that is already of great interest, specialising as it does in plants from Mediterranean climates, not least Australia. More information about the garden can be found on their website (www.bristol.ac.uk/Depts/BotanicGardens). Don't be alarmed that the garden is apparently not open in May; our visit has been arranged specially for APS members.

The website also provides details about how to get to the Bristol suburb of Stoke Bishop where the Garden is located. It looks to be accessible by public transport (bus from Bristol Temple Meads station) as well as by car. Entrance will be free to members, as will parking which will be available on a first-come first-served basis in the Walled Garden car park, or in Stoke Park Road if this is full.

We have kindly been offered the use of a room in the Garden for our AGM which will start at 11:00 am. It will be followed by a guided tour of the Garden in the afternoon, which the Curator, Nick Wray, intends to lead. Tea and coffee will be available in the morning at a cost of £1.50 per head. However, as the Garden will not be open at the time of our visit you will need to bring your own lunch. There should be an opportunity at some point during the day to swap plants, so please bring any spares you may have propagated.

So that we can give the Garden an idea of numbers attending, and let those who wish to come have further details of parking and access arrangements at a later date, **would you please let APS Secretary, Jeremy Spon, know at least a month beforehand.** It is just possible that numbers for the Garden tour might have to be limited, so it is particularly important that you do let the Secretary know that you would like to come. Anyone who would like more details of the day at this stage, including more information about how to get there, should also contact Jeremy.

Southern and northern meetings 2010

Plans are well advanced for both northern and southern meetings but details have yet to be finalised.

Pat Anderson has very kindly offered to host a northern meeting at his home in North Yorkshire, most probably on 26th June. Pat is a longstanding APS member and wrote about growing bottlebrushes 100 metres up in the Tees valley in issue 33 of Pentachondra ('Gulliver in the Land of the Botanists', page 10, December 2004). He says his bottlebrushes are still hanging in there, along with eucalypts, corokias, hakeas and various other species.

The southern meeting will probably take place in July. We will be visiting the World Garden of Plants at Lullingstone Castle in Kent, created and run by APS member Tom Hart-Dyke. In the meantime there is more information about the garden at www.lullingstonecastle.co.uk.

Full details will be provided in the May 2010 Pentachondra and as soon as available in the email messages that many members receive. If you can't wait till then, or do not have access electronic communiation, do contact our Secretary, Jeremy Spon.

APS NEWS

2010 Seedlist

The 2010 seedlist and application form will be sent out with the May 2010 newsletter as usual. If you can't wait till then you can get it by email from APS seed manager, Richard Christmas, from 31st March 2010. As Richard's APS email address is not always reliable he suggests that members use morayacacia@aol.com.

As you will see from the minutes of the 2009 AGM (page 39) it was decided to raise the charge for seeds to £4 from 2010. This is due to the increased cost of postage and envelopes, and changes in the exchange rate.

New treasurer

Tony Entwistle, who stepped down as Treasurer at the 2009 AGM after 21 years stewardship of APS finances, was one of our Society's founding members in June 1988. I'm sure all members will join me in thanking Tony for doing such an efficient job for so many years. And I'm sure also that everyone will join me in

welcoming Aubrey Woods as our new Treasurer.

Subscriptions are due

All subscriptions are due on 1st January 2010. If you don't pay by direct debit or standing order please send your cheque for £10, payable to Australasian Plant Society, to the Treasurer, Aubrey Wood. His address is in the contacts list inside the back cover.

Would you like to help with our web presence?

We would like the APS website to be found easily by people looking for information about Australasian plants, and when they find it to encourage them to join us (but not act as an alternative to joining!). There are a number of ways you could help with this, even if you don't have any techie know how!

Many of the ways in which we could publicise ourselves on the web need no technical expertise – just for you to think about us when you encounter them. For instance:

- There are web sites which allow plant societies to add their information and link to their web site. If you come across one of these and the APS is not already on it please let us know so we can take advantage of the publicity from doing so.

- Are you in a web discussion group about plants? Might you be able to start a discussion on Australasian plants, or join in one which might be relevant, and mention our Society in it?

- We could have an entry on Wikipedia and similar sites – would you like to write it for us?

We will soon be starting to make some changes to our own web site and assistance with this would also be helpful. If you have any relevant technical expertise and would like to help with the technical side that would be marvellous. But there are many other non-technical ways you could help: For example:

- Compile entries for a directory of where Australian and NZ plants can be seen in the UK and Europe.

- Contribute to a list of books about southern hemisphere species, including their cultivation in the UK and Europe.

- Use your gift for writing things in an appealing way to advise on wording for the website.

- Make suggestions as to what else might be included on the web site to encourage newcomers to try our plants and join our society.

If you can offer any help of any kind please send an email to webmaster@anzplantsoc.org.uk.

Membership

The APS would like to extend a warm welcome new members Jock Hare, Iain Mann, Tim Simmonds, Alison Bath, J Prins and Peter Wiseman.

As we have done many times before, those present at the 2009 AGM agonised over member numbers. It's for this reason that a membership form is included with this issue. If you value your membership, maybe a friend would too?

Pentachondra contributions

The deadline for the next issue is **1st March 2010**, but you don't need to wait till then; any time will do. There are all sorts of topics you might consider. You could write about your own garden, a garden or nursery that you have visited, a favourite plant (or even a horror plant – see Jeff Irons' article in issue 29, December 2002), an interesting book, a cultivation technique - articles on any topic are welcome as long as there is some relevance to Australasian plants! The same goes for photographs and drawings whether to accompany articles or as stand-alone items (with a caption if the latter) . And if you have any doubts as to whether what you would like to write would be suitable you can always phone or email me to ask.

I like to include all contributions received from members as I believe it's the diversity of articles that makes Pentachondra interesting. Some-times however articles have to be held over until the next issue for reasons of space, and this is also one of the main reasons for cutting and editing articles. In fact, I suspect it takes more of my time as editor to format and arrange the text and photos so that it all fits neatly into 40 pages - no more, no less - than it does to do anything else! (Which also explains why you may find a few extra words in your article.)

Articles can be any length and can be submitted electronically or as hard copy; if the latter, typed copy is preferred as there is less chance of errors creeping in. For where to send your contributions see the editor's contact details inside the back cover.

We would like your…..

…. good photos of the more easily grown and attractive Australian and NZ plants. Yes, we would also like pictures of the less common and more challenging plants. But to encourage new members we would like to be able to show them plants that have immediate visual appeal and which can be easily grown to get them hooked, and hopefully to then progress to some of the rarer and more difficult species.

These pictures would be put on our web site as part of the revamp which we are embarking on. We're sure that many of you will have suitable photos, so why not use the dark winter evenings to go through your photo collections to see what you might have to help us with this.

CELERY-TOP PINE

Jeff Irons

Early travellers along Tasmania's rivers often saw what looked like the top of a bunch of celery sticking up above the general rainforest canopy. They called the tree that bears it Celery-top Pine. Botanists took a different view and thinking that the foliage resembled that of a Spleenwort, gave it the specific name *aspleniifolius*. They put it in the genus *Phyllocladus*.

So the botanical name of Celery-top Pine is *Phyllocladus aspleniifolius.* The Greek word for leaf is *phyllon* and that for branch is *cladon.* So the name, daunting at first sight, actually tells us that the flattened branchlets (cladodes), which contain chlorophyll, have taken over the function of the leaves and that the cladodes themselves are shaped like the frond of a Spleenwort (see photo page 9). The true leaves are minute deciduous scales, seen along the edges of the cladodes.

Plants can either bear flowers of one sex only, or can have separate male and female flowers. Often in clusters of 3 or 4, the flowers are borne on the cladode edges and the fruit, like that of a yew, is a small nutlet surrounded by a fleshy aril. Scale bracts at the base of the fruit turn pink or red and swell so that they partly enclose the aril, acting as bird attractants.

Phyllocladus used to be found over a large part of S.E. Asia but today there are only four species, one in Australia and New Zealand and three others in Malesia. They are not pines (Australians give that name to all conifers) but are actually in the southern family Podocarpaceae.

Keeping you informed!

With Pentachondra issued only twice a year we like to keep you up to date on news, meetings and so forth in between issues. Using the post to do so would be time consuming and costly but email lets us to do it quickly and cheaply. We send out several updates each year and currently we have valid emails for about half our members.

If you don't receive these emails and would like to then please send a request to webmaster @anzplantsoc.org.uk. We will acknowledge this as quickly as possible – within a day or so other than in exceptional circumstances. If you don't get a reply, please look in your anti spam folder as even the most innocent of messages can get misidentified and put in there. If you still don't receive a response please email again and we will investigate to see what the difficulty might be.

And please don't forget to let us know if you're changing your email address so we can continue to update you. It is quite frustrating to send out emails only to have them bounce back again when the address is no longer valid!

Celery-top Pine is a tree with a straight bole and no buttresses. Although it can be up to 30 metres high, specimens of less than 20 metres are quite common. Needing moist acid soil, in the wild it grows in conditions with cold winters and cool or humid summers with an annual rainfall of 1000-3000 millimetres. Seedlings have long narrow true leaves and quite quickly the new foliage is cladodes, not leaves. Like legumes and casuarinas the tree has a mycorrhizal association which enables it to utilize soil nitrogen, so seedlings should be put into a compost containing unsterilized soil and there are obvious implications for cuttings.

Nowadays it is confined to Tasmania, with a dwarfed subspecies *alpina* in New Zealand. This latter plant has a green 'leaved' and a glaucous 'leaved' form. Both can be found in British gardens. As pot specimens they enable gardeners with small gardens or alkaline soil to grow this delightful, handsome and desirable tree.

❀❀❀❀❀❀❀❀❀❀❀❀❀❀

BRACHYGLOTTIS BRUNONIS

An almost unknown small attractive tree

© Gary Dunlop

Groundsel is a weed much loved by budgerigars apparently, if not by gardeners. It is not a particularly handsome plant, but as weeds go, it is fairly innocuous and easily removed. Would anyone reasonably want to grow a groundsel tree if such a plant existed? It does not sound like plant of any aesthetic merit, or horticultural merit. But such a plant does exist, and it does have garden merit. It is a rare endemic from Tasmania, where it is found growing on the slopes of Mt. Wellington.

This plant, a member of the Asteraceae, was first described by Joseph Hooker, as *Centropappus brunonis*, in 1847[1]. He established a new genus for the plant, apparently because the pappus (the hairs or bristles attached to the seeds of Asteraceae) was stiffer on this new plant than the soft hairs which were more common in other members of the family in the same region. It was subsequently transferred to the much larger genus of *Senecio* in 1956 by J.H.Willis[2], becoming *Senecio brunonis*, before it was moved again into an older genus, *Brachyglottis* (established in the mid 18thC by the Forsters, father and son, who accompanied Lieutenant Cooke on his second voyage around the world), as *Brachyglottis brunonis*, by the Danish botanist B. Nordenstam in 1978[3].

It was fully described and illustrated under the name *Senecio brunonis* in Volume 2 (number 62) of the *Endemic Flora of Tasmania*, which was instigated and financially supported by Lord Talbot de Malahide, who added notes to the first 5 volumes regarding some of the plants

described that were in cultivation[4]. Unfortunately he died before the last volume was published, and which included a tribute to him by Professor Stern.

Rather surprisingly, Bean does not mention the plant at all; even in the Supplement, which mentions the transfer of several New Zealand plants from Senecio to Brachyglottis by Nordenstam, he omits their Tasmanian relative[5]. Perhaps even more surprising is the absence of this endemic tree from a local book on Tasmanian flowers and plants[6]. This small tree has also escaped the attention of the International Dendrological Society, and so does not feature in the new book on trees introduced in the last few decades[7]. It even escaped the attention of Charles Nelson in his encyclopaedia of plants and cultivars with Irish connections[8]. So despite being in cultivation for over 40 years this tender tree has remained below the radar of botanists and dendrologists in the British Isles.

It was Lord Talbot who was responsible for the only introduction of this rare tree into cultivation. He raised a few seedlings in 1964 of which only two survived with him, though he had given another two away. His two plants survived but had not flowered by 1969 when the tree was included in the second published volume of the endemic flora. However, his plants eventually flowered and he raised some additional seedlings which he distributed to various keen gardeners and suitable gardens including Irish gardens Mount Usher and Mount Stewart.

The only other mention of this plant that has been traced in print in the British Isles was by John Anderson who was head gardener at Mount Usher at the time, but subsequently moved to Inverewe for some years before taking his present position at Exbury. He mentioned *Senecio brunonis* briefly in a short article on some lesser-known plants in Plant Heritage, the journal of the NCCPG[9]. He noted that it was difficult to root from cuttings but easy from seed collected and sown after flowering.

Brachyglottis brunonis is a small evergreen tree up to about 5 metres tall, though as it sheds the previous year's foliage each year this gradually results in a light canopy over bare branches and trunk. It is likely to be short lived as it becomes increasingly spindly after 10-15 years, and ceases to be attractive. It has narrow dark green and glossy but slightly viscous leaves which have a faint aroma of honey, though the melliferous scent is stronger in the flowers, or when the foliage is crushed The chrome yellow flowers are presented in quite large dense clusters at the end of the branches, in June and July, and make a surprisingly attractive display. As Winfred Curtis notes it requires "fairly high rainfall but also good drainage"[4]. The cool and humid, if not always wet, summers in Ireland seems to suit it admirably, as with many Tasmanian plants. Its natural habitat on Mt.



Leaves of Celery-top Pine, *Phyllocladus aspleniifolius*



Melaleuca diosmifolia





Brachyglottis brunonis

Wellington is apparently strewn with dolerite boulders which suggests that it grows in relatively poor acid soils, though if Milo Talbot was able to grow it in the ground at Malahide it will tolerate being grown in alkaline soil.

Nigel Marshall, the head gardener at Mount Stewart, raised quite a few plants of *B. brunonis* over the years and had planted out a small grove just outside the Italian garden where they formed an attractive backdrop, especially when in flower. I chanced to see and fortuitously photograph them (see page 10) at their best around about the millennium, shortly before they went into a relatively fast decline, possibly accelerated by several periods of drought in successive years.

A year or two before, Nigel had kindly given me one of his surplus plants, which I'm glad to report is still growing and flowering well. Shortly after getting the plant, I happened to mention it to Jeff Irons, who had apparently been trying to introduce the plant into cultivation for about 20 years, but without success. Fortunately Nigel was able to spare another plant, which I sent to Jeff.

I subsequently supplied some seed for the Australasian Plant Society seed list so hopefully the plant is now getting more widely distributed. As a result *B. brunonis* even managed a brief appearance in the Plant Finder (2006-7). Whether it will grow so well or even survive for long in England remains to be seen, though I gather from Jeff that his plant is still growing well and he is now supplying seed to the APS seed list.

References

1. Hooker, J.D. 1847: Hooker's London Journal of Botany Vol. 6 p.124.
2. Willis, J.H. 1956: Muelleria 1 (3).
3. Nordenstam, B. 1978: Opera Botanica 44:30 A Societate Botanicus Lundens Lund Copenhagen.
4. Curtis, W. & Stones, M. 1967-1978: The endemic Flora of Tasmania Vols 1-6. Aerial Press, London.
5. Bean, W.J. 1980-88: 8th ed. Trees & Shrubs Hardy in the British Isles 4 Vols. & Supplement.
6. Simmonds, M. & Wapstra, H. & A. 2008: 4th ed. A Guide to the Flowers and Plants of Tasmania. for Launceston Field Naturalists Club, Reed New Holland, Sydney.
7. Grimshaw, J. & Bayton, R. 2009: New trees. Kew, London.
8. Nelson, C. 2000: A Heritage of Beauty. Irish Garden Plant Society, Dublin.
9. Anderson, J.1995: Some lesser-known plants in our gardens. Plant Heritage.

MELALEUCA LUCKY DIP

Jeremy Spon

Quite a few years ago, when I was first getting interested in Australian plants, I bought a mixed packet of *Melaleuca* seed

from Chiltern. They described germination as easy and suggested that some of the species included might be hardy; at least you would have plenty of plants to experiment with.

I did end up with a number of plants of varying appearance but identifying the species was tricky as no list was provided with the seed. Some I tried outside and lost them all in the first winter. A few I kept in pots and nursed through successive winters. Two flowered regularly after the first five years or so and I was able to identify them with reasonable confidence as *Melaleuca armillaris* and *M. hypericifolia*.

One other, however, stubbornly refused to flower, and I couldn't really be sure which species it was until this year when in April buds finally began to develop. As my photo (page 9) shows the flowers are really green and I have been able to identify the plant as *M. diosmifolia*, from Western Australia. (Not to be confused with *M. diosmatifolia*, from south eastern Australia, with mauve flowers.)

Its distribution in the wild is not well understood. It has only been recorded from a few locations, so it may be rare. Its habit is distinctive, and although the flowers are not spectacular, I am pleased to have grown it to flowering size. I have since seen it in the Temperate House at Kew, but would be interested to know if any other members have grown it. (It has been on the APS seed-list for the last few years.)

GREVILLEA X SEMPERFLORENS

Judy Clark

In 2007 I was given a grevillea by Tim Darrington, which, he told me, went by the name of 'Desert Flame'. I planted it out in my south coast garden the following summer where it flowered prolifically, producing many clusters of delicate pinky yellow flowers (see photo page 21).

The problem was its name. According to Wrigley and Fagg[1] the only grevillea given the epithet 'Desert Flame' is a form of *G. rosmarinifolia* that is found in the Little Desert in western Victoria. I consulted Jeff Irons and he confirmed this. But the leaves of my plant were such as to rule it out as any form of *G. rosmarinifolia*. Meanwhile, in spring 2008 I obtained a another grevillea plant, this time from Jeremy Spon, called *Grevillea semperflorens*. It is identical in all respects to my other plant, and performs similarly in my garden.

Problem solved, I thought, until I looked up *Grevillea semperflorens* in the Australian Plant Name Index to find it wasn't there. Nor was it in any of my Australian reference books, or the RHS Encyclopaedia of Garden Plants. Was this another example of a mis-named plant?

Back to the internet where I found an article by Tony Cavanagh on the SGAP website[2]. *Grevillea* x *semperflorens*, he says, originated

in England as a cross between *G. thelemanniana* and *G. juniperina* var. *sulphurea*, and he wondered if it was grown in Australia. Not long after, and quite fortuitously, I came across another reference in an article by Neil Marriot on garden grevilleas in *Growing Australian*[3]. He reports that *Grevillea* x *semperflorens*, a hybrid between *G. preissii* and *G. juniperina*, was bred in 1926 but not introduced to Australia until 1999. (At first glance this looks like a somewhat different parentage, but the genus Grevillea was revised quite recently and *G. preissii* is the name for what was previously *G. thelemanniana* subsp. *preissii*.)

Semperflorens is Latin for 'always flowering' and not only are both my plants flowering as I write (November 2009); both have flowered almost continuously since they were planted, with just a brief hiatus in the spring. They have grown at a reasonable speed and tolerate pruning. Moreover the freezing winter weather of 2008-2009, when the temperature dipped to -5.4ºC, appeared to affect them not one whit. To my mind *G.* x *semperflorens* is a truly gardenworthy plant, at least in my part of the country, and it surprises me that it is not more widely available.

References

1. Wrigley JW and Fagg M, 2003, Australian Native Plants: Cultivation, Use in Landscaping and Propagation, 5th edition, Reed New Holland.
2. Cavanagh T, March 1988, History of Grevillea Cultivation in England, Society for Growing Australian Plants, asgap.org.au/APOL9/mar98-5.html
3. Marriot N, 2008, Garden Grevilleas, Growing Australian, Vol. 52, No. 3, 27-32.

ACACIA VERNICIFLUA

Jeff Irons

Five years ago I sowed some of the APS seed of *Acacia verniciflua*, keeping two seedlings for my own garden. I saw no reason to doubt their authenticity for the seed had come from an Australian botanic garden and the young phyllodes were indeed shiny, as if they had been varnished. The plants flowered in 2008, when they were four years old.

Then in 2009 I noticed that the phyllodes of my plants had only one nerve (vein). *A. verniciflua*, however, has two nerves. After some enquiries I was able to get the assistance of a botanist at the Melbourne Herbarium. He identified my plants as *Acacia leprosa* var. *uninervia*, Nail Creek variant, a plant that was only described in 2009! Until this year it has been simply *A. leprosa*.

So if you have grown *A. verniciflua* from APS seed, check your plants to see what they actually are.

ACACIA DEALBATA

Brian Halliwell

Seeing the picture of acacias on the Algarve on the cover of the May 2009 Pentachondra prompted me to write this article about *Acacia dealbata*.

A. dealbata is confined to Tasmania, Victoria, New South Wales and the Australian Capital Territory where it has the common name of Silver Wattle. In the United Kingdom it is called Mimosa or Florists' Mimosa and it used to be sold in posies or bunches by florists and even from street barrows in London. Flowering branches came into England from southern France but it is many years since I saw Mimosa on sale. Whilst much admired as a cut flower in Europe, in Australia it is considered bad luck to bring cut branches in flower into the house.

In southern parts of Australia it can make a shrub but more often it is a tree, especially in Tasmania where it can reach or even exceed 100 feet (30 metres). Most species of Australian acacia have their leaves replaced by phyllodes which are hard and spiny (see Jeff Irons' article on the botany of Acacia in Pentachondra December 2008, page 8). *Acacia dealbata* has true bi-pinnate leaves which are silvery-grey, hence the common name. New stems and young leaves have a silvery pubescence which intensifies the leaf colouring. There are forms in which the leaves are glaucous rather than silvery, becoming almost blue in some selections. It was the blue leaved forms that were favoured by florists. In my experience, these forms are less hardy than the silvery grey ones.

Flowering occurs in winter or early spring. The yellow spheroidal heads of tiny fragrant flowers form large panicles. In the open this species tends to be tender and has not been reliably hardy in Britain except perhaps for the south west. But after 20 years of mild winters it might well be that it has become more widely established and plants have grown to flowering during that period. Flowering is variable and is dependent on summer warmth in the year before flowering.

My experience of it in southern England was in the earlier decade of the 1980s when cold winters with snow were frequent. I raised saplings from a range of wild collected seed from many sources. These were planted at the foot of a high south facing wall with most being killed off during the first winter. If they survived this stems were thicker and roots had penetrated deeper and as a result these saplings were more likely to survive the next winter. My best result was with saplings raised from high altitude Tasmanian seed. One of these survived for four winters and reached a height of 15 feet (nearly 5 metres) only to be killed in the next.

Wattles are easy to raise from seed. Pour boiling water over the seed and allow it to remain in the cooled water for 24 hours before sowing. In my experience *A.*

dealbata requires an acid soil and yet one can read in books that it will tolerate some alkalinity. Most usually, even in the milder winters, shrubs/trees will be grown against a south facing wall and this needs to be of considerable height.

A memorable experience, from when I was flying over Tasmania in winter on a journey from Melbourne to Hobart, was to see through the portholes mountain tops which were golden with the flowers of Silver Wattle.

OZOTHAMNUS: HOOKERI OR CUPRESSOIDES?

Jeff Irons

Do you grow *Ozothamnus hookeri?* If so, your plant may not be that at all but another species called *O. cupressoides*.

O. hookeri is confined to Tasmania, while *O. cupressoides* is its counterpart on mainland Australia. You can easily tell the difference by looking at the leaves. Those of *O. hookeri* are about 0.5 to 1.5 millimetres long while those of *O. cupressoides* are usually 1.5 to 3.5 millimetres long. When in bloom *O. hookeri* has 4 to 6 flowers in each head and *O. cupressoides* has 5 to 15 flowers in each head. If you are lucky enough to be visiting Mount Kosciuszko in the summer you will find plants of *O. cupressoides* just above the top of the chairlift.

UPDATE ON AUSTRALASIAN FERNS IN WEST CORK

Phemie Rose

In the autumn of 2003 we were bitten by the fern bug and so the bottom west end of the garden, which is sheltered from the prevailing south westerly salt laden winds by hawthorn, holly, bamboo and *Magnolia grandiflora*, was duly cleared of all the existing trees and shrubs and fern planting began. This area is constantly damp due to an underground stream. Some parts are far wetter than others thus allowing us to plant a bigger range of tree ferns according to their individual water requirements.

Our average rainfall is between 1000 and 1250 millimetres. We do have a few frosty nights every winter with more than usual last winter but -3ºC was our lowest temperature. Snow is a rarity.

I last recorded measurements of the tree ferns in January 2006 (*Fabulous ferns,* pages 4-7, Pentachondra issue 36, May 2006). The box on the next page provides an update on their progress as of September 2009.

We are also growing several small trunked Blechnums including *B. nudum* (see photo page 19), *B. tabulare* and *B. discolor*. They are beautiful ferns and grow very well in our warm, wet climate.

Australasian ferns in West Cork

Dicksonia antarctica (Planted as a small trunked specimen in 1997)
2006 Trunk ht. 5ft circ. 32" 25+fronds 7ft long
2009 Trunk ht 5ft circ. 32" 25+ fronds approx 7ft long
Cyathea smithii (Planted 2002 as a small trunked specimen)
2006 Trunk ht 34" circ 21" 12 fronds 45" long.
2009 Trunk ht 42" circ 21" 12 fronds 45" long.
Cyathea australis (Planted as a small trunked specimen in 2004)
2006 Trunk ht. 32" circ. 26" 2 new crosiers emerging
2009 Trunk ht. 36" circ 29" 20+fronds 60" long
Cyathea cooperii (Planted in 1999 as a very small trunked specimen – photo page 19)
2006 Trunk ht. 29" circ 16" 3 crosiers emerging
2009 Trunk ht. 30" circ 13" 4 fronds 7ft long
Cyathea dealbata (Planted in a dryer spot in the woodland area in 2002 – photo page 20)
2006 Trunk ht. 28" circ 18" 9 fronds 5ft long
2009 Trunk ht. 32" circ 26" 20+fronds 86" long
Cyathea cunninghamii (planted in a really wet shaded spot)
2006 Trunk ht. 8" circ. 10" 7 fronds 26" long
2009 Trunk ht. 20" circ 11" 11 fronds 31"long
Cyathea medullaris
2006 Trunk ht. 20" circ. 19" 5 fronds 7ft long
2009 Trunk ht 50" circ. 31" 7 fronds 10ft+ long
Dicksonia squarrosa (Planted in 2001 beside the stream which provides constant humidity – photo page 20)
2006 Trunk ht. 30" 14 fronds 4ft long
2009 Trunk ht. 30" Circ. 14" 15 fronds 5ft long.

Now that most of the tree ferns have trunks of some size I only wrap *Cyathea cooperii* and *Cyathea cunninghamii* in the autumn. I wrap the trunk in two layers of green/shade windbreak fabric and put some fleece in the crowns but keep an eye out for emerging crosiers. Most of the tree ferns are planted under Eucalyptus or *Magnolia grandiflora* and their leaves (which do not retain moisture) fall naturally into the crowns of the tree ferns planted beneath and protect the crowns during the winter.

PROGRESS AT KERRACHAR

Peter Kohn

This far north we have to contend with cool summers and very wet winters but at least our winter temperatures are not that low. Last winter was the harshest for some time but our coldest air temperature was only -2.5ºC and our mean night-time minimum was around 3ºCin January and February. As a result it is worth trying quite tender subjects

providing we can shelter them from wind and salt.

Acacia verticillata withstands the salt rather well and is now more than three metres tall, flowering profusely each Spring; its only disadvantages are a tendency for branches to snap off in the worst winter gales and that awful smell. *A. melanoxylon* is tucked into a sheltered corner and although it lost a lot of young foliage last winter has come back strongly. A young plant of *A. baileyana* var. *purpurea* is also doing well so far in a very sheltered spot.

We have been experimenting with Proteaceae and planted the first group in April 2007. Among the Australasians we have been very impressed by the waratah *Telopia* 'Burgundy' *(T. oreades* x *T. speciosissima)* which flowered profusely this spring, has put on a further 80 centimetres of growth this summer, and even has seedpods (though whether they will ever ripen is another matter).

Two Banksias have come through two winters unscathed. *Banksia marginata* seems to grow continually and is now 1.2 metres by 1.2 metres. Our original plant is in the very free-draining sandy soil of the original protea bed but we have just acquired three more plants to try out in the wetter peaty soil in the Tasmanian area of our Darwin Garden. *B. paludosa* is growing more slowly and this year we have added a seed-raised plant of *B. spinulosa.* In the winter we aim to create a new protea area and seed-raised plants of *B. serrata, B. caleyi* and *Telopea truncata* will be tried along with a plant of *Banksia integrifolia* purchased at Rosemoor.
Other tender plants that survived last winter include *Clianthus punicea* (slightly shell-shocked and not flowering as well as in 2008) and *Metrosideros excelsa* which showed very slight singeing at the end of winter but looks fine again now.

Our 'Darwin Garden' is a very gently sloping area of wet peaty ground which is exposed to a lot of wind from most directions and salt spray in some gales. Initial preparation, after erecting a deer fence, was restricted to strimming the entire third of an acre. Planting involves digging pits fifty or sixty centimetres in diameter and at least as deep and planting into well-rotted compost. The original plan was for a planting of shrubs from Tierra del Fuego but this has been extended to include areas with shrubs (and tussock grasses) from wet, windy peaty regions of New Zealand and Tasmania. Interestingly, many of the plants that are recommended to be planted in well-drained soil in sheltered sites have done surprisingly well. In the Fuegian area *Desfontainea spinosa* has grown very well and this year has been flowering for four months, for example.

In the Tasmanian area we have had mixed success. Mountain Pepper, *Drimys lanceolata* (syn. *Tasmannia lanceolata*) is growing more slowly than plants in the main garden but is now well-established. We have tried various Tea Trees. *Leptospermum*

grandiflorum has been the most successful: our largest plant is now 150 centimetres tall and flowered freely this year. Though *L. scoparium* suffered a bit last winter it has recovered well but we did lose *L. lanigerum*. Other established Tasmanian plants include *Melaleuca squarrosa* (Scented Paperbark) which is doing well, and *Eucalyptus subcrenulatus* which is the only eucalypt we have succeeded with at all and which gets cut back a lot each winter. *Ozothamnus* 'Threave seedling' looks fine just now but most of the plants suffered badly last winter. *Dianella tasmanica* is thriving.

In the New Zealand section we still have space for a lot more plants. The longest established are the phormiums (*Phormium tenax* and *P. cookianum*) both of which grow far more slowly than in the main garden, as do the grasses *Chionocloa flavicans* and *C. conspicua,* though *C. rubra* and *Cortaderia richardii* are much happier. Among the shrubs the two toughest Daisy Bushes, *Olearia traversii* and *Olearia*. x *macrodonta* are doing fine and *Cassinia vauvilliersii* (syn. *C. leptophylla* subsp *vauvilliersii*) is thriving.

In both areas we are still looking for more ideas for suitable plants. They need to be tolerant of peaty, very acid and wet soil, not to mention strong winds and occasional blasts of salt. If you have any suggestions please email peter@kerrachar.co.uk.



HARDY OR TENDER

Tony Entwistle

There are few expressions in gardening more difficult to define than 'hardy' and 'tender'.

They can mean different things in different countries. In Australia hardy tends to mean simply tough and easy. One definition for hardiness that I read was "a plant that will thrive outdoors in the British Isles" but this is meaningless given our varied geographical climate. The term 'half-hardy' is also used (though not the phrase 'half-tender'), originally to denote bedding plants. For example HHA (half hardy annual) meant plants that should not be planted until frosts were gone but is now applied to many plants. Other adjectives such as 'borderline', 'tenderish' and 'on the edge' also appear. Then there is 'hardy when mature' which is hardly helpful: when is a plant mature?

So it is not surprising that maps and hardiness zones have been devised. The one currently used in the RHS Dictionary, based on the US Department of Agriculture and the German Heinz and Schreiber, classifies zones from 1 to 11. But these are only of limited value: here in Cheshire up to RHS zone 7 is OK but zones 8 and 9 are risky.

In so far as Australian plants are concerned , most from non-tropical parts would be zone 8, and those from Western Australia zone 9, but there are some that would be hardy enough to qualify as zones 6

Australasian ferns in West Cork



Cyathia cooperi



Blechnum nudum



Dicksonia squarrosa

Cyathea dealbata





Grevillea x semperflorens



***Clematis aristata*, Bedgebury**

Ventnor Botanic Garden





or 7. The latter would include quite a few Eucalyptus, and from my experience of plants that have survived outside without harm over the past 25 years I would include those in the box below. Probably even these would not have survived the winter of 1962-63 which some readers will remember. But if we only get such a winter every 100 years then we can ignore the risk – life's too short!

Species grown outside without harm in Cheshire

Acacia pataczekii
Acacia longifolia
Caliistemon rigidus
Callistemon subulatus
Grevillea rosmarinifolia
Leptospermum rupestre
Prostanthera cuneata
Richea scoparia
Tasmannia lanceolata
many of the dwarfer Hebes

Hardiness, or tenderness, is related to climate, and not just to the degree of winter freezing either above or below ground. It also involves wind (especially the north and east winds that desiccate), seasonal temperatures, rainfall, humidity, soil (pH and type), drainage, sunshine, and the microclimate that every garden has.

Gardeners can modify some of these. We can offer protection by planting on south-facing walls (especially house walls) and using fences, hedges or windbreaks. We can water in drought, change our soil, fertilise, improve drainage, counter pests and diseases, protect roots with mulch in winter and prevent winter wet with glass or plastic. Those of you who are very keen can erect wigwams or suchlike around plants using cut evergreens, hessian or plastic but you run the risk of your garden resembling an abandoned Cherokee encampment. (A plantswoman in Cheshire used to wrap her plants in old corsets – she must have got through a lot!)

We don't really understand why frost kills some plants when even some soft leaved plants such as our weeds survive. Summer heat certainly toughens shoots of shrubs and makes them more frost resistant through lignifying and thickening the cellulose walls of their cells, and some plants have their own 'antifreeze' in crystals and aromatic oils. We know that deep snow can protect from frost and this happens in the Alps in the natural environment. Frosts which penetrate deeply into the ground are especially damaging to evergreens as it stops their transpiration.

Genetic variation or mutation can happen with anything raised from seed and this may include the degree of hardiness. It is well known that plants from seed of a species growing at higher altitude are hardier than those from seeds of the same species growing at lower altitude; for example, as with Eucalyptus. Sometimes mutation can occur in the primitive cells of the meristem of a developing shoot giving us 'sports' which may prove hardier. Perhaps in the future specific

genes for hardiness will be isolated and incorporated in our tender plants (and see 'Freeze-Pruf', page 37).

Plant catalogues, I have found, tend to be over-optimistic in their hardiness ratings, especially nurseries from the favoured south. When one sees a zone 10 plant advertised as 'hardy throughout Britain' one cannot help but feel that this is a sales gimmick. Also, a note like "hardy to -10" does not mean much if it refers only to one isolated incident. The same applies to notes from Australian lists as frosts there are often only of a few hours duration at night.

Hardiness is also linked closely with the ability to thrive; that is, for a plant to attain its full potential. There are many plants which although hardy here do not really thrive, flowering rarely or never because of a lack of summer heat and sun. An example of this is *Emmenopterys henryi*, a tree introduced from China by planthunter Ernest H Wilson in 1907 and described by him as one of the most beautiful of Chinese trees. It has flowered in Great Britain only once (at Wakehurst Place in 1987) and only once elsewhere in Europe (in 1971 in Italy). There are two large old trees at Tatton Park. Another example is *Lyonothamnus floribundus* which has never flowered in Britain. (Those who attended the AGM will have seen the large specimen at Chester Zoo.)

At the other extreme are trees that like a longer, colder winter than they get here, or are very subject to spring frost damage. And of course 'borderline' plants which persistently get badly damaged in even in mild winters can hardly be said to thrive even if they regrow.

New plant introductions need time and monitoring before their hardiness can be finally assessed. Sometimes plants from much warmer climes prove surprisingly hardy here. For example, when Camellias were first introduced to the early Victorians they were treated as hothouse subjects and it took quite some time before it was realised that they were hardy and thrived outdoors. This also applies to garden-raised hybrids and cultivars released each year from plant breeding programmes. The healthy and vigorous will survive while the weaker will just disappear from commerce, through perhaps preserved in special collections.

In conclusion, all gardeners take risks and it is part f the joys and disappointments of gardening. We may think briefly of 'health and safety' and NHS jargon – we do a 'risk assessment' initially or a 'root cause analysis' for failure followed by an 'action plan' for the future if we fail! Mostly we just carry on trying, grateful that here we can grow so many plants that are far removed from their native habitat, even when in our unpredicatable climate their performance can vary from year to year. To misquote Pope: "Hope springs eternal in the gardener's breast".

UPDATED WINTER REPORT FROM HORSHAM

Jeff Layman

In the May 2009 issue of Pentachondra I noted some of the winners and losers over the previous winter. I did add the caveat, however, that "the true picture will not emerge until later in spring, when perhaps some of those plants which seem to have survived will keel over when growth starts.". So here is the update. No comment about a plant previously mentioned means there has been no change!

Banksia serrata (Saw Banksia) has suffered. In May it started to show signs of leaf loss. By June the top metre (it was about 2.5 metres high) had died, as had some lower side shoots, zapping it more or less to ground level. However, it is resprouting strongly from its lignotuber, with several shoots already 20 centimetres plus in length, and a number of the surviving side branches have started to shoot, too. It will look more like a shrub than a tree if it survives!

A personal communication from Jeff Irons confirmed that *'Grevillea ?barklayana'* is a hybrid and not the specie (which is correctly *G. barklyana* anyway). It had no protection but has shown no damage whatsoever and is growing strongly.

Sophora "Sun King" did not suffer cold damage. Its main stem/trunk just died for unknown reasons. It had two thinner trunks, and these survived without damage. It flowered and fruited on these in May, although not as well as previous years.

Griselina littoralis 'Variegata' suffered some browning to the edges of a few leaves. I was surprised that it did not show more frost damage.

Melaleuca lateritia (Robin Redbreast Bush) was looking defunct by early May. All upper growth was dry and I assumed it was dead, but in mid-June it started to sprout from the base. It now has several basal shoots of about 10 to 15 centimetres long.

Solanum laciniatum (Kangaroo Apple) was really dead and has been removed and replaced by a new seedling which is already 80 centimetres high and has flowered and fruited. I think that the cold weather simply finished off the original plant which was already on the way out due to its age.



TAKING CUTTINGS

Jeremy Spon

Taking cuttings can be a frustrating business; some plants are easy, some are difficult and some seem virtually impossible, but the results in any case can be quite unpredictable. Like most gardeners, I suspect, I am always interested in new techniques which might enable me to succeed where I have previously failed.

Unfortunately there is never a magic formula; like the golfer who is convinced that a new club or change of swing will transform his game, we gardeners are always forced to recognize in the end that getting the basics right, and attention to detail, are the most important factors. Having said that, variations on traditional methods can improve the chances of success, and I thought one that I have been trying recently might be of interest to members.

As far as the basics of taking cutting are concerned, and the principles involved, I cannot improve on the article by Jeff Irons in issue 25 of Pentachondra (*Vegetative Propagation*, pages 26-28, December 2000.) In this article Jeff discusses the correct time to pot on cuttings which have rooted, and the compost to use for this. The main consideration is to balance the cuttings' need for nutrients with their reduced ability to absorb water from a nutrient-rich medium. There is also the problem of getting cuttings to be self-supporting (and, which Jeff doesn't mention, the problem of handling cuttings with young brittle roots.)

My current method, adapted from the technique for seed sowing described by the late Peter Thompson in his excellent book *Creative Propagation*[1], is to have a layer of growing compost in the bottom of the pot or tray, with a layer of cuttings compost on top of this. The cuttings compost I use is 50:50 grit and perlite, and the cuttings are placed so that the base of the cutting is near the top of this layer. The theory is that roots form initially in the cuttings compost, which is completely sterile, very free-draining, and well-aerated, but then grow down into the growing medium, adapting to this more nutrient-rich environment as they go. There is then no hurry to re-pot to get the cuttings into a medium from which they can start taking up nutrients.

I am sure this method is not unique to me, and I cannot claim that I have conducted rigorous comparative trials to establish how effective it is, but it does seem to be producing stronger plants more quickly with those cuttings that actually root. I would be interested to hear if any members try this method, and how they get on; but do not forget to follow the basic principles set out so clearly by Jeff!

Book Review: Eucalyptus

Eucalyptus, by Murray Bail, was first published in Melbourne, Australia in 1998 and is available in paperback from Harvill Press, London.

It is a magical fairy tale and love story centred on the nomenclature of eucalyptus trees: a man promises his daughter's hand in marriage to whomever can name all the eucalyptus species growing on his land. It had wonderful reviews and won several awards but is little known over here.

Frank Hytten

VENTNOR BOTANIC GARDEN

Jeremy Spon

Members with good memories may remember that the late Peter Thompson (see obituary in issue 42) wrote an article some years ago which was not entirely complimentary about Ventnor Botanic Garden (pages 15-16, issue 29, December 2002). He was particularly unhappy with the maintenance standards and the lack of labels. This may have put some members off going there, even if they were visiting the Isle of Wight anyway.

A second article by Tony Hayter did much to counter this, highlighting as he did the excellent collection of New Zealand plants (pages 25-26, issue 30, May 2003). I hope my experience of a visit in July 2009 will make members even more inclined to think again. In fact, I would urge all members to go to Ventnor if they can, because it must be one of the most exciting gardens in the UK for anyone interested in Australian plants. It isn't yet another Tresco, but it is heading that way!

Recent development work has resulted in, among other things, a spectacular Australian section. Although planting only began four years ago the size of many of the plants is already impressive, and because the design of the gardens and plantings is intended to give a feeling of natural habitats, the effect is not just that of a collection of rare plants, but of a real wild landscape (see photos page 22).

Simon Goodenough, the Garden's Curator, is passionate about experimenting with plants of borderline hardiness, and has one of the best sites in Britain to do this, Ventnor having a very mild climate. (Last winter saw the first significant frosts for four years.) Plants that would struggle to survive the winter outdoors on most of the mainland have here made large specimens. These include several unusual eucalyptus species, the wattles *Acacia verticillata, A.brachybotra, A. trineura* and A. *baileyana* var. *purpurea (* a veritable tree), prostantheras, melaleucas such as *Melaleuca gibbosa* and *M. armillaris*, and *Bedfordia linearis*. It will be fascinating to see how the plantings develop over the next few years, but they already provide sufficient justification for a visit, quite apart from the equally impressive new South African area, and the longer established New Zealand Garden.

Ventnor Botanic Garden is open from March 1 to October 31. More information can be found at www.botanic.co.uk.

You are welcome to visit...

Amanda Kershaw and Dennis Blundells' garden in Wallasey,Merseyside. Phone (0151 639 7611) or email them (sandboxtree@talktalk.net) to make an arrangement, which might well include the provision of tea and cake!

2009 MEETING REPORTS

AGM Report

Sue Catchpole

You will have seen the notice in the spring newsletter stating when and where the APS Annual General Meeting will take place and you probably thought: "Oh, that is of no interest to me, I'll leave it to other members to attend and to vote any new incumbents onto the committee and discuss APS matters. It will be a terribly boring day, completely uninteresting, and I could spend the time more usefully in the garden".

So, what happens at an AGM? Well, on Saturday 13th June 2009 we met at 11.00 am, had a welcoming cuppa and chatted to other members. Then, for approximately an hour, the AGM business matters were dealt with and then we adjourned for lunch. Following lunch we had a guided tour of the gardens of the chosen venue, Chester Zoo.

Our host and curator Mark Sparrow guided us around the zoo's gardens, focusing mostly on the southern hemisphere plants that are under his care. First stop, we saw a small weeping tree, a lovely *Robinia pseudoacacia* (actually a native of the USA), and an *Acacia dealbata*, both of which had survived -5°C or so last winter. Then, by the Komodo Dragon enclosure, an Eriobotrya in good health. In the Tasmanian border a *Lomandra* (Mat Rush) had been planted, a species not common it cultivation. It replaced some correas that had died this winter, which led to a discussion about hardiness. Someone suggested *Correa* 'Marion's Marvel' would have been a hardier choice but another said *C. decumbens* may be hardier. *Correa alba* 'Pinkie', which had been protected, did survive and had just about finished flowering.

In the New Zealand border was a specimen of the leafless *Clematis affoliata* together with the daisy-like *Brachyglottis monroi* 'Clarence', with neat crinkled green leaves. *Leptospermum scoparium* 'Red Damask' was in full flower, with the usefully evergreen and self-sowing *Haloragis erecta* 'Wellington Bronze'. Mark thought that *Teucridium parvifolium*, a small New Zealand endemic related to *Coprosma*, had died, but on closer inspection by our group members noticed a fair amount of new growth. *Chordospartium stevensonii* (Weeping Broom, now *Carmichaelia stevensonii*) was not yet in flower but the pretty white flowers of *Hebe cupressoides*, with their prominent red anthers, were abundant (see photo page 31).

In the Joseph Banks Garden *Grevillea* 'Canberra Gem' was a magnet for bees along with *Sophora tetraptera* and *S. microphylla*. We also saw *Banksia integrifolia*. (For more about the Joseph Banks garden see Mark Sparrow's article in Pentachondra issue 40, May 2008, pages 36-37).

We were taken into the Butterfly House, which opened at the end of last year , an area that Mark had also planted. We then proceeded to look at the borders around the Andes Garden where *Drimys winterii* was in flower and around the Jaguar House with its South African planting and a magnificent specimen of the Californian tree *Lyonothamnus floribundus* subsp. *asplenifolius* which looked to be all of 10 metres high.

We then went into the private glasshouses where the Zoo has a NCCPG[1] collection of Pleurothallidinae orchids, including specimens of the weird and wonderful Dracula Orchid. Another interesting glasshouse plant was *Ptilotus exalatus* (Pussytails), a member of the Amaranthaceae and endemic to arid Australia (**see** photo page 31).

Chester Zoo covers more than 100 acres and Mark showed us aspects of approximately 25 acres of it. There is a tremendous amount of planting of trees and shrubs and perennials for which he is responsible. The bedding and grass mowing is looked after by a separate department.

We were a small group but progress around the gardens was slow because a discussion would take place regarding a particular plant's merits; whether an alternative was hardier or more prolific in flowering; more manageable; whether it could be pruned; and so on and so forth. The afternoon was a wonderful opportunity to chat with like-minded gardeners and find out what plants work for them and why; alternative choice in cultivation methods; and discussions of composts. Such things make all the difference between success and failure.

Please take the opportunity to attend the 2010 AGM. As soon as the date and venue are published in the newsletter (see page 2), enter the details in your diary and join us for another private tour of a notable garden – along with advice from fellow members – and all for free!

Note
1. NCCPG: National Council for the Conservation of Plants and Gardens, now also known as Plant Heritage.

Northern meeting report

Amanda Kershaw

One morning in early September, Dennis and I parked in the car park of the Swettenham Arms Pub in Swettenham Village, near Congleton, Cheshire and walked inside to meet three other APS members - Tony Entwistle who had kindly organised the day, Tony Hayter (also of the Hebe Society) and Steve Wood - for the APS Northern Meeting. After coffee and a short chat, we went back outside and walked up the path at the side of the pub to the entrance of The Quinta Arboretum and enjoyed a wonderful day looking around.

The arboretum was created by Sir Bernard Lovell and is owned by

the Tatton Garden Society. The 28 acre site includes a 12 acre wild wood, meadows and scenic views over the River Dane and contains three thousand species of trees and shrubs with a estimated total number of 25,000 .

Tony Hayter, who jointly established its large and very interesting Hebe display beds back in 2003, spoke about the care that had gone into this display of over 100 hebes. They include *Hebe* 'Beatrice', *H. parviflora* 'Holdsworth', *H.* 'Kew Feather' and H. 'Karo Golden Esk', a whipcord hybrid. (Further details of this project can be found at www.hebesoc.org; go to site map, then to The Quinta Arboretum.)

Southern Beech, *Nothofagus*, are well represented at Quinta with mature specimens of *N. antarctica*, *N. procera*, *N. obliqua* and *N.dombeyi*, all from Chile and Argentina. There are also about twenty varieties of Eucalypt, *Athrotaxis cupressoides* (Pencil Pine) and *Diselma archeri* (Cheshunt Pine), both from Tasmania, and some New Zealand shrubs including *Olearia haastii*.

Other notable collections include over 90 species of *Quercus* and outstanding examples of all the known species of the Wing Nut trees (*Pterocarya*) including the hybrids *P. rehderiana* and *P. fraxinifolia*. There are also over 73 species of pines, over 20 species of *Abies* and an avenue of Red Twigged Limes (*Tilia platyphyllos* 'Rubra'). To these can be added rhododendrons, camellias, magnolias and an unusual collection of lilacs including *Syringa sweginzowii* and *S. tigerstedtii* from China.

Larix kurilensis from the Kurile Islands in the western Pacific, planted in 1979, is now a large tree and rarely seen outside botanical gardens. There is also a 30 year-old Japanese Umbrella Pine, *Sciadopitys verticillata*. Mature trees include the Chinese Rubber Tree (*Eucommia ulmoides*), the Hop Hornbeam (*Ostrya carpinifolia*) from Asia Minor, the Butternut Tree (*Juglans cinerea*) from north America and the East Asian Date Plum (*Diospyros lotus*), known to the ancient Greeks as 'the fruit of the gods'.

I could go on, but you can see why Dennis and I were the last ones to leave at nearly 7pm!

Southern meeting report

Judy Clark

On a warm Saturday morning in early May eight APS stalwarts looked round at the hordes of cyclists thronging the car park at Bedgebury in Kent, hoping to spot a familiar face and wondering if we'd come to the wrong place. Our confusion could be forgiven for while Bedgebury does contain the National Pinetum which has the finest collection of conifers on one site in the world, Bedgebury Forest is also a popular place to enjoy to enjoy outdoor activities.

Familiar faces spotted, including Amanda and Dennis all the way from Wallasey, we walked down to the visitor centre to meet Dan



Hebe cupressoides

Ptilotus exalatus





The first (and out of season) flowers on a five year old specimen of *Richea* x *curtisiae* in Jeff Iron's garden

Luscombe, Bedgebury's Propagator and Assistant Curator , who had kindly agreed to show us round. The Pinetum contains nearly 10,000 trees and shrubs of about 1800 different species from all five continents, many of them rare and endangered. Naturally we wanted to see the Australasian species and fortunately Bedgebury isn't all conifers. By the same taken some conifers do hail from Australasia. Either way we were not to be disappointed.

Setting off along the path by the dwarf conifer bed we took in *Diselma archeri*, a slow growing Tasmanian member of the Cupressaceae. Next, crossing the hillside we saw *Eucalyptus coccifera* with its greyish hook-tipped leaves held at all angles, and shiny Varnished Gum *E. vernicosa*. In the walled garden (the old car park) one specimen of *Clematis aristata*, protected by a high wall, was in full flower (see photo page 21) while a second specimen next to it was quite dead.

From there we rambled further in the Pinetum though by exactly what route I cannot remember; too many paths going every which a way. But we did see Manna Gum, *E. viminalis*, which had some frost burn from the previous winter and more *E. coccifera,* in flower. *Hakea lissosperma* was also in flower and seemed quite unscathed although it had experienced a low of -14ºC the previous winter. (Dan is able to be quite precise about temperatures as sensors have been installed.) Other Australasians that we passed included Celery-top Pine from New Zealand with smaller leaves than plants from Tasmania, a tall *Athrotaxis laxifolia* (near the thujas) and some frost damaged *Eucalyptus johnstonii.*

Next stop was the nursery where we met Bedgebury Curator Chris Reynolds and where seed collected from around the world is propagated and grown on to provide plants for Bedgebury and other collections and gardens. The pots used for growing on were quite new to me. They are called Air-Pots™ (see box on page 34) and Dan's view is that they are 'brilliant' but they do dry out quickly and so an automated irrigation system is required. As very much of an amateur I was impressed by the set-up but Dan is hoping that Bedgebury will get a grant to build a shiny new nursery which will allow him to achieve much more by way of raising seed-grown plants.

From there we were taken to another area of Australasian species just over the cycle track from the Pinetum itself, and utilised, if I remember correctly, because it is one of the warmer parts of Bedgebury. Among the species we saw there were *Banksia marginata*, which had experienced temperatures down to -10ºC and didn't look brilliant, *Bursaria spinosa* which looked fine, several specimens of the temperate rainforest species Myrtle Beech (*Nothofagus cunninghamii*) and more Celery-top Pines. Nearby, in the Pinetum, is a Huon Pine (*Lagaraostrobos franklinii*) that was planted in 1935 and which must be more than 6 metres tall

Air-Pots™

Air-Pots are manufactured by the Caledonian Tree Company They are made of recycled plastic (HDPE) and are reusable. Their major benefit, at least for the non-commercial grower, seems to be that their design produces plants with better quality root systems than other containers.

An Air-Pot is cylindrical in shape with a textured sidewall that looks a bit like an egg carton with inward and outward pointing cones; the latter are perforated. The base sits above the bottom of the sidewall. The result is that plant roots are prevented from spiralling and the root tips are effectively air-pruned when they reach the holes in the outward pointing cones, leading to a dense and fibrous radial root system in a short time.

I have made this summary from information on the Air-Pots website (www.superoots.com); do any members have experience of using them?

Judy Clark

(and according to The Tree Register is the tallest in England).

By then we were well over time but we still paused to look at some *Callitris* on the hill near the visitor centre. *C. oblonga* is endangered in its natural habitats in Tasmania (where it is called South Esk Pine) and New South Wales (where it is called Pygmy Cypress Pine). Populations are small and isolated, and vulnerable to grazing and fire. The plants at Bedgebury were raised from seed collected by staff.

I don't feel I have managed to do justice to our tour in this short report, and I certainly haven't mentioned all that we saw. But I can recommend Bedgebury as destination for APS members ; as I hope I've made clear, you don't need to be a conifer fan to still find much of interest.

After a quick lunch several of us went off to visit APS member Graham Blunt's Plantbase Nursery near Lamberhurst in East Sussex. Unfortunately Graham's stock suffered badly in last winter's low temperatures but nonetheless there were many interesting plants to see. I was much taken by *Melaleuca cuticularis* (Saltwater Paperbark). As its name implies is tolerant of salt but it was its habit that I liked; the twisted branches and trunk and very pale bark. Plantbase is well worth a visit if you are passing but be warned, it is not easy to find. Otherwise Graham does mail order; visit www.plantbase.co.uk to see what's on offer.

LETTER FROM AUSTRALIA

Nicky Zanen

It is now two years since I left the UK and I have finally settled into my unit in Boronia near Melbourne. My garden has had a total makeover and during spring I indulged in buying sprees at

various plant sales. Most plants are in the ground, awaiting what could be a horror summer, but up to the beginning of November the weather has been extremely mild with sufficient rain to shut me up.

The ASGAP 2009 Conference, when members Australia wide come together, was held in Geelong (Victoria) at the end of September. There was a council meeting of ANPSA (Australian Native Plants Society Australia) which is the new name for ASGAP (Association of the Societies for Growing Australian Plants). Amongst items raised were concerns about the continued destruction of natural bush habitat in Western Australia and the declining state of the National Botanic Gardens in Canberra.

A sub committee from New South Wales, who are handling the publishing of *Australian Plants*, the ANPSA Journal, assured us that the next three issues would be available before the end of this year, and the next three are in the pipeline. They hope to catch up by the end of next year. They are also looking for themes for future editions, and this is where you, the Australasian Plant Society, could think about contributing to a dedicated volume about growing Australian plants in the northern hemisphere. (Ed: What do members think?)

The first of our bus tours was to the Brisbane Ranges (between Melbourne and Geelong). We had to have our shoes cleaned with a mixture of methylated spirits before we were allowed to ramble around (reminding me of the terrible time we had when foot and mouth was in the UK). This was to protect the bush against Cinnamon Fungus (*Phytophthora cinnamomi).* There were so many flowers, including orchids, but the sun orchids kept themselves closed in the bitterly cold wind and overcast wet conditions. Geelong hasn't had much rain for the past decade, but made up for it while we were there!

We also stopped by Kevin Hoffman's walk in Lara. Kevin has worked this area, which is a flood plain just outside his home and was terribly neglected, for the past 40 years. A couple of years ago though, he succumbed to the pressure of not having any water available, lost interest and left the area neglected. It was sad to see this happen, but three positive outcomes came from it. Firstly, Kevin concentrated on his own garden and started dabbling in putting art into his work. Secondly he was given permission to use water for his 'Walk' despite the severe restrictions in the Geelong area. Thirdly, the local council, the Lions Club and a high school now give him assistance with maintaining the garden and plans are in place for the long term management of this unique garden. And he is steadily expanding it again having just added a landscaped feature with handmade bricks. It is well worth a visit.

Our other visits were to the Royal Botanic Gardens (RBG) Cranbourne Annex, returning via

the ferry from Sorrento to Queenscliffe, and a trip to Anglesea, south west of Geelong. It was good to share the exciting landscaping of the RBG with our interstate visitors. On the first day of lectures several people commented very favourably on the work that Paul Thompson is doing there. The new visitor centre was opened in September, and phase 2 of the development is about to begin.

The flora in the Anglesea heathland was also very good and we finished the day with a visit to the garden of our Victorian president, Brendon Stahl, in Deans Marsh. Here our Western Australian guests were most impressed with the Banksias grown by Brendon. Whether due to fewer predators or better soil conditions his specimens looked terrific.

The final volume (Volume 9, Sp – Z) of the Encyclopaedia of Australian Plants is about to be released. Originally this encyclopaedia was going to be three volumes published over 6 years. The finished product has taken 30 years and is 9 volumes plus 5 supplements! It is unique to say the least, and has been a work of love for the authors – Rodger Elliot, David Jones and Trevor Blake – and their wives, who have all been involved with the series for all this time. (Rodger and David are the co-authors, and Trevor is the illustrator.)

Rodger acknowledged the incredible amount of assistance he has received in compiling the encyclopaedia, not only from plant enthusiasts in Australia, but also from the USA (particularly Santa Cruz) and Europe. He specifically mentioned the valuable assistance from Jeff Irons from Wirral, commenting that he is "a stickler for detail".

We are planning to celebrate this incredible milestone in March 2010. If you happen to be in town, visit the APS Victoria website (www.apsvic.org.au) for details.

Finally the next FJC Rogers Seminar is being hosted by APS Bairnsdale on the 21st and 22nd August 2010, and the subject is Grevillea Hybrids, Cultivars and New Species. Both Neil Marriott and Peter Olde will be guest speakers. So, if you are passionate about Grevilleas, August is a good time to visit!

I wish you all a happy Christmas and all the best for 2010.

BITS AND PIECES

Reference books

Jeremy Spon

APS member Elisabeth Telford wrote to me asking if I could recommend a good reference book for identifying Australasian plants, something that may also interest other members.

There are so many different plants in Australia that no one reference book is going to cover them all. *Australian Plants* by our own Jeff

Irons and the late Thomas Ross (1997) is one I use a lot. It is selective but there is a lot of information about the plants included, and the selection is based around what can be successfully cultivated in Europe. It also has a very good bibliography, although many of the books mentioned are published in Australia.

The RHS *A-to-Z Encyclopedia of Garden Plants* (3rd edition, 2008, published by Dorling Kindersley) covers quite a few Australian genera, with good photos, as does Roger Philips and Martyn Rix's *Conservatory Plants*, though both are quite expensive. I know several people use Wrigley and Fagg's *Australian Native Plants* (full details on page 13) but at £50 new I have baulked at buying this! (Your editor, however, thoroughly recommends it, though you have to remember when reading it that 'frost hardy' does not mean able to cope with the sort of frost encountered in much of Britain.)

Your local Waterstones is unlikely to have any books specifically about Australian plants, but I have picked up some good items in second-hand bookshops over the years . And don't forget our Chairman, Keith Larkin, sells second-hand gardening books.

DVD: Eucalypts

Frank Hytten

A superb DVD – *Euclid: Eucalyptus of Australia* – available from CSIRO Publishing, (PO Box 1139, 150 Oxford Street Collingwood, Victoria 3066) tells you everything you could possibly want to know about all 894 eucalypts. This is the third edition containing 204 more taxa than the second edition and is loaded with information including more than 9000 colour pictures.

Acacia covenyi

Amanda Kershaw would like to know if any other APS members are growing *Acacia convenyi*, as she would like to know more about the conditions it needs. It is described in Wrigley and Fagg as "spectacular in flower; only recently brought into cultivation; appears to be hardy and frost resistant". It was on the 2009 APS seedlist and will hopefully reappear on it in 2010.

FreezePruf™

Judy Clark

Jeff Layman emailed me to say he had just come across this: www.liquidfence.com/FreezePruf. Intrigued, I looked it up. Freeze-Pruf , the website claims, is a scientific breakthrough; a non-toxic spray which improves plants' natural cold tolerance up to 9.4°F (about 5°C), depending on the variety of plant, by enhancing both its natural 'anti-freeze' properties and its ability to survive ice crystal damage. Developed by botanists in the US, it doesn't seem to be available in the UK but it does sound too good to be true! Has any APS member given a plant a shot of FreezePruf?

Illustration acknowledgements

Judy Clark: pages 9 (*Phyllocladus aspleniifolius*), 21 & 31.
Gary Dunlop:front cover and page 10.
Sue Hyams: drawing page 40
Jeff Irons: page 32
Phemie Rose: pages 19 & 20.
Jeremy Spon: pages 9 (*Melaleuca diosmifolia)* & 22.
Back cover: David Ware

The Australasian Plant Society

Minutes of the Annual General Meeting 2009 held at Chester Zoo on 13 th June

Members Present:

Jeff Irons – President
Keith Larkin – Chairman
Tony Entwistle – Treasurer
Jeremy Spon – Secretary
Judy Clark – Newsletter Editor
Richard Christmas – Seed Manager
Dennis Blundell
Sue Catchpole
Amanda Kershaw
Mark Sparrow
Diane Ware
Aubrey Woods

Apologies:

None.

The chairman welcomed those members and partners attending. He expressed his thanks to the new Secretary and Newsletter Editor, and his pleasure at the smoothness of the handover from the previous officers.

1. **Minutes of the previous meeting** – were approved without amendment.

2. **Matters arising** – none which were not covered by agenda items.

3. **Secretary's report**

The Secretary reported that he had dealt with a few membership enquiries during the year, and a few miscellaneous enquiries about Australian plants.

4. **Treasurer's report**

The Treasurer began by pointing out that it was 21 years since the first meeting of the Society (then the UK branch of the Society for Growing Australian Plants.). He reported that we had lost 18 members during 2008, but gained 6 new ones so far in 2009; an that the current total was about 140. There had been a slow decline in membership numbers for several years, and if the total dipped below about 120, we would start to suffer financial deficits, and have to dip into our reserves. At present, however, the financial position is satisfactory and subscriptions could stay the same.

There followed some discussion on how to retain and indeed increase membership. Tony reported that 45 members needed renewal reminders at the end of February (2009) and 28 of these had to be reminded again at the end of February, which meant a lot of work (standing orders help to reduce this.) The possibility of free trial membership was raised, but further discussion was postponed to Any Other Business.

The Seed Manager raised the cost of the seed distribution, pointing out that the income from seed orders was only half the amount spent on buying seeds, and asked whether the charge to members should be raised. The Treasurer said that the distribution had always been subsidised, but that costs were rising year on year. After some discussion it was agreed that the charge next year should be raised to £4. Overseas members would continue to get their allocation free, as arranging payment was too complicated.

The accounts were unanimously approved. Proposed Jeremy Spon, seconded Judy Clark.

5. **Newsletter Editor's report**

The Editor apologised for the last two issues of Pentachondra being delayed - this was due to the amount of work involved being greater than anticipated. However, the supply of articles had been good, and otherwise all had gone smoothly. The targets for the next two issues were: November, by end of October 2009, and May, by end of April 2010. Keith thanked Judy for all her hard work, and congratulated her on two excellent editions.

6. **Seed-list Manager's report**

There had been some requests for new species to be included in the seed-list, otherwise there was little change from last year's distribution. Jeff Irons commented on problems with incorrect names, but observed that the quality of our seed-list was still probably better that that of the RHS.

7. **Election of officers**

All were willing to stand again, with the exception of Tony Entwistle, who was retiring as Treasurer, to be replaced by Aubrey Woods. Keith Larkin proposed that the officers be elected en bloc, this was seconded by Sue Catchpole, and approved unanimously.

8. **Next Year's AGM**

One suggestion was to approach Simon Gulliver at Birmingham Botanic Garden to see if we could meet there again. However, Mark Sparrow said that he was willing to contact Nick Wray, whom he knew, about visiting Bristol University Botanic Garden. Amanda Kershaw commented that although the Garden had recently moved to a new site, it was already looking good, and as the South-West was felt to be a good area for an AGM, it was agreed to take up Mark's offer, with the Secretary to follow up once the initial contact had been made.

9. **Any Other Business**

There was further discussion on the problem of falling membership. The Chairman suggested that Pentachondra might be made more attractive to those less knowledgeable about Australasian plants, with a wider variety of articles - for instance on gardens (of members and those visited) and books. Commercial advertising was not felt to be worthwhile, but the website had again drawn several membership enquiries over the last year, and improvements to this were felt to be desirable, in particular keeping it up to date. Tony Hayter, who manages the Hebe Society website, was willing to help with technical issues; the Chairman felt that the site should emphasise the easier plants to grow, and have more pictures, but asked for more concrete ideas for structure.

A membership leaflet should be included in Pentachondra again, and members encouraged to recruit friends. The importance of email for keeping in touch with members was stressed, and they would be encouraged to make sure the Chairman and Secretary had up-to-date addresses

The Chairman then thanked everyone for attending, and declared the meeting closed.

