AUSTRALASIAN PLANT SOCIETY
NEWSLETTER

PENTACHONDRA

ISSUE 53 DECEMBER 2014



Mountain devil, *Lambertia formosa*

AUSTRALASIAN PLANT SOCIETY

Newsletter Number 53

DECEMBER 2014

CONTENTS

A message from your chairman, Robbie Blackhall-Miles	1
APS News	1
Brian Halliwell 1929-2014, Robbie Blackhall-Miles	5
Two native plants of the Blue Mountains, Margaret Somerville	6
About growing Thysanotus, Judy Clark	8
Pentachondra (the plant), Robbie Blackhall-Miles	13
Trochocarpa thymifolia, Gary Dunlop	15
Logan Botanic Garden, Jeremy Spon	16
The New Zealand plant garden at Hampton Court flower show, Gary and Maria Firth	17
Temperate Australasian ferns, Ben Ram	23
Beervelde Plant Fair, Jeremy Spon	28
Garden Reports: Phemie Rose, Alexandra Boyle and Maurits de Vries	29
Meeting Reports: The glasshouses at RBGE, Wakehurst Place and Wondrous north Wales	33
Minutes of the APS Annual General Meeting 2014	37

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A MESSAGE FROM YOUR CHAIRMAN

Robbie Blackhall-Miles

At the 2014 AGM at Edinburgh Botanic Gardens I was voted in as the new society chairman. I am currently in the process of taking over the reins from Keith Larkin, who we all have to thank for his hard work and commitment. The death of Jeff Irons, our previous president, is a great loss to us, so it is thanks to Keith and the committee that the society remains resilient.

Our president Tom Hart-Dyke is an inspirational figurehead for the society whose enthusiasm knows no bounds. We have a shared vision for the successful future of the society and with your help and support, we look forward to this.

But I guess you are wondering who your new chairman actually is, so here is a little about me. I am a plant propagator by profession and dabble in horticultural journalism. I have been growing rare and interesting plants since I was a small boy and currently garden a small patch in North Wales. My main plant groups of interest are Proteaceae and ferns, of which Australasia has many. As time goes on and I get to learn more from APS members, my interest is broadening and hence I have started growing a whole host of other Australasian plants.

I have taken on the chairmanship of the society because I feel that there is scope for our little society to grow. We all belong to something that is unique and interesting, just like the plants we are growing. Some of our members are pioneers of horticulture, growing those plants that others believe are far too experimental. A changing world and a changing climate may mean that what we are trying in our gardens now could become commonplace it the future and I find that prospect really rather exciting.

I would like to know how you feel about the society. What are the things you would like to see us doing? What are the things you think we should stop doing? What would encourage you to attend more events? Write articles for Pentachondra? Make you feel more a part of the society?

You can contact me by email or on twitter (@GondwanaPlants) and if you are ever in North Wales please give me a yell beforehand and drop in to have a mooch around the garden.

I hope the hot summer has done your gardens the world of good. And I hope to hear from you soon.



APS NEWS

There's quite a lot of it about as our society is going through a period of change. Following the 2014 AGM (minutes on **page 36**), a Special General Meeting (SGM) was held on November 15 at Lullingstone Castle. Some of the matters discussed are reported here; the complete minutes will appear in the May 2015 issue. Meantime if you want to be kept up to date with

news and events by email we need your **current** email address. **Please contact Jeremy (membership @anzplantsoc.org.uk) if you've changed yours recently.**

New members

The APS would like to extend a warm welcome to Billy Carruthers, Hilary and Stephen Collins (Grafton Nursery), Mrs. Christine Dingwall, Patrick Driscall, Hal Gamble, Rupert Harbison, Ingrid Millington, Nicola Jane Rathbone, Margaret Somerville, Richard Scott Timperley, James and Katie Treseder (Wallcottage Nursery) and, Miss Joan Vincent.

Treasurer's report

Jeremy Spon

Membership subscription

The cost of membership of the APS has, for UK members, remained fixed at £10 (£12 for 'joint' or 'household' membership) for 9 years now. (The last increase became effective in January 2006.) We are fortunate that despite increasing printing and postage costs for Pentachondra, this subscription still covers the costs of providing all the current benefits of membership.

However, at the SGM there was some discussion about the future development of the Society, and it was agreed that, quite apart from the inevitability of costs continuing to rise in future years, if we want to expand the activities of the Society, to provide more attractive benefits to members, and increase the membership, more money will need to be spent. I hope members will agree that at the current rate membership of the APS is a bargain, but I also hope they would agree that if the extra money is mainly used to fund the development of the Society an increase to £15 per year would still represent good value. (Subscriptions for overseas members would probably remain unaffected for the time being, as these were raised much more recently.)

Your committee intends to put forward a proposal to this effect at the next AGM, but in the meantime we would very much like to hear members views, whether in favour of or against such an increase. Comments can be sent to any committee member, by post or email, (or even written on your subscription renewal form) and I hope as many people as possible will give us their views.

PayPal

Sharp-eyed members looking at our excellent new website may have noticed that it includes a facility to join the Society online, with payment via PayPal. This facility has been provided to make it easier for anyone attracted by the information on the website to join, without having to send membership forms, cheques etc. through the post. However, there is nothing technically preventing existing members using this facility to renew their subscriptions using PayPal. As Treasurer, I am conscious that cheques are increasingly seen as old-fashioned and inconvenient, but I also would like to point out that the use of PayPal has a cost to the Society; specifically, of the £10 new members in the UK would pay via

PayPal, the Society only receives £9.46. So I would like to ask existing UK members to bear this in mind if they are tempted to use the website facility. Any who do so will still be accepted as having renewed their subscription, but I hope that UK members will refrain from using this method. The Society is willing to accept a small deficit on the payment in return for the benefit of recruiting new members, but if all existing UK members paid via PayPal, the income from subscriptions would be reduced by over 5%!

Overseas members please note: As PayPal remains the cheapest, safest and easiest method for you pay your subscriptions, we will continue to take payments from you by this method.

Events 2015

As decided at the AGM in Edinburgh in future the AGM will be held in November each year as a separate event from other meetings. The main reason for this change is that it seems a shame to spend precious time closeted in a room discussing APS business when one has travelled, often many miles, to visit a garden or see a nursery. Full details for the 2015 AGM will be posted on the website and published in the next issue of Pentachondra.

For 2015 we hope to arrange at least one event in the south of the UK and one in the north. Various suggestions were made at the SGM: a West Sussex visit to Gary and Maria Firth's eclectic garden in Haywards Heath combined with a short trip to the nearby Borde Hill Gardens; a visit to Sheffield Botanical Gardens (longstanding members will remember the APS AGM was held there in 2005, and more recently in Pentachondra Peter Kohn has kept us up to date with developments); and (if there were sufficient demand), a long weekend (or longer) in Cornwall, taking in both gardens with southern hemisphere plants and nurseries which specialise in selling them.

Subscriptions are due!

All subscriptions are due on **1st January 2015.** If you **don't** pay by standing order or similar please complete the enclosed renewal form and send it with your cheque (payable to Australasian Plant Society) to APS Treasurer & Membership Secretary Jeremy Spon. If you pay by standing order or have already paid for 2015 you will not have received a renewal form but please contact Jeremy if any of your details have changed.

Overseas members who paid via PayPal last year will receive a PayPal payment request from the Treasurer shortly before the end of 2014. If you would like to start paying by this method then please contact the Treasurer. Overseas members can also send cash through the post but do so at their own risk.

Annual subscriptions are £10 for UK members and £15 for members resident elsewhere.

Your committee would like to offer more meetings but for that we could do with your help. books is that this would lead me to learning about Brian himself. It also Visits to private gardens seem particularly popular and we would really welcome offers from members to host a visit. How about it? Or if not your garden perhaps you know of an interesting public garden or a good nursery. You wouldn't be on your own; your committee would help and advise.

As soon as they are available full details of meetings will be posted on the website, and sent by email to those members for whom we have an email address. And of course the information will be included in the next Pentachondra. If you do not have access to electronic communication and would like the information (should it be available) before the May issue of Pentachondra is published please contact Judy by phone or post (details inside the back cover).

Seedlist

Big changes are afoot with the organisation of the APS seedlist. Richard Christmas has decided to step down and the post of seed manager will henceforth be filled by Janet Miller. Many thanks to Richard for all his hard work over the years, and many thanks to Janet for offering to take on the role.

The changeover will take some time to complete, and we ask members to bear with the interim arrangements for 2015. We hope to make the 2015 seedlist available on the website as soon as possible after 1st January 2015, and to send out seeds from 1st March. An updated seedlist will be posted on the website later in the year, on or soon after 31st March, and distributed with the May Pentachondra as usual. The seedlist will be open until at least 1st September. In the meantime if there are any **major** changes to these arrangements members will be informed by email.

The seedlist will be posted in the members area of the website. To access this area you will need a password. If you don't yet have a password please contact webmaster Ben Ram at webmaster@anzplantsoc.org.uk. It will also be sent by email to all members for whom we have an email address (so if yours has changed recently please let us know). If you do not have access to electronic communication and would like a copy of the seedlist before the May issue of Pentachondra is published please contact Janet Miller by phone or post (details inside the back cover).

Pentachondra contributions

As ever, many thanks to everyone who contributed to this issue. Any article, of any length, that has at least a passing connection with Australasian plants will be much appreciated for the next issue. How about writing about your garden, or a favourite plant, or a garden or nursery that you enjoyed visiting, or a book (it doesn't have to be recently published) that you recommend? We all learn more from hearing about others'

experiences and even the newest newcomer can contribute to knowledge of Australasian plants and their cultivation.

The deadline for the next issue is **31st March 2015**. Contributions should be sent direct to the editor, either electronically or as typed hard copy. Please contact the editor if you have questions of **any** sort about contributing. .

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BRIAN HALLIWELL 1929-2014

Robbie Blackhall-Miles

Recently, not long after I had taken over the chairmanship of the society, I received an email from Richard Christmas to say that he had been contacted by a group of solicitors regarding one of our members, Brian Halliwell.

It seemed that Brian had left the society a number of books and some money for their care and for transportation to their new home. I took on the responsibility of overseeing this bequest and orchestrating delivery of the books.

What I hadn't realised as I started organising the collection of these books is that this would lead me to learning about Brian himself. It also left me feeling a sense of loss that I had never had the good fortune to meet him.

Brian Halliwell passed away on 22nd March this year at Overgate Hospice, Halifax aged 84. Born 21st June 1929, the son of a master butcher, he grew up in Halifax where, as a teenager, he trained with the Halifax parks department. He gained the prestigious National Diploma in Horticulture from RHS Wisley from where he went on to spend five years working in Tasmania and three in New Zealand as lecturer and propagator at Lincoln college. It was this time spent in the southern hemisphere that brought about his deep love of Australasian plants and led to him being a founder member of our society.

After returning to the UK Brian spent a few years at the Royal Botanic Garden Edinburgh and then went on to spend 21 years as an assistant curator at Kew. A daring plantsman, he was known for his interesting ideas and alternative thinking. One year he planted the beds outside the Palm House at Kew with hundreds of lewisias growing horizontally. He even managed to shock Christopher Lloyd of Great Dixter with his bedding displays using only vegetables. He won Gold at the RHS Chelsea flower show in the

Australian Plants – A Guide to their Cultivation in Europe by **Thomas Ross and Jeff Irons**

Brand new copies of this exceptional book are offered to APS members at the very special price of £10 including UK postage. (Members not resident in the UK will be charged the additional postage cost.) To get your copy contact Judy at editor@anzplantsoc.org.uk.

late 1970's with a display of native wildflowers, long before natives were as fashionable as they are today, and won Gold there again just before his retirement in 1989.

His personal interests lay in the alpine plants of Tasmania and New Zealand and he wrote extensively about these plants in both Pentachondra and the journal of the Scottish Rock Garden Club. He wrote the foreword to *Australian Plants: A guide to their cultivation in Europe* by Thomas Ross and Jeffrey Irons, two more founder members who are no longer with us. He was a stalwart supporter of the Canterbury Alpine Garden Society (which was later to become the New Zealand Alpine Garden Society), lecturing, writing many articles for its Bulletin, and in 1963 establishing the Society's seed exchange. Brian continued as an active horticulturist up until just a few years ago and was a regular at the benches of the northern Alpine shows.

Brian Halliwell's knowledge of his subject will never be surpassed and his death leaves us with just a miniscule amount of that knowledge in the form of his articles and books. We are lucky as a society that Brian has left us a considerable library covering a whole range of subjects pertaining to Australasian plants and the history of their discovery in Australia and New Zealand. The Brian Halliwell library will be held at Lullingstone Castle and is accessible by prior arrangement to all APS members.

Brian Halliwell, I thank you.

With thanks in particular to Maggi Young, SRGC Vice President and Editor International Rock Gardener, and to Karen Somerfield, long-time friend of Brian Halliwell.

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TWO NATIVE PLANTS OF THE BLUE MOUNTAINS

Margaret Somerville

In the late 1920s, the Blue Mountains (New South Wales) were not overwhelmed with international tourist coaches and day-trippers as they are today. At that time it was the fashion for young Australians from the cities, particularly Sydney, to motor into the mountains, stay a night or two in guesthouses, and by day go bushwalking. My mother and her sister were keen hikers (see photo **page 9**) and belonged to a group who regularly drove out of Sydney in a friend's Austin tourer to spend weekends in the higher Blue Mountains and down into the Megalong and Jamison valleys. There they hiked, picnicked and photographed themselves in the bush, the men smart in casual suits and ties, the girls in linen skirts and cloche hats. In the 1930s the sisters, still unmarried, decided to buy a mountain house together. It was a simple weatherboard house about a mile from Blackheath Railway Station and close to Govett's Leap Road. The house was called 'Auld Reekie' (built by a nostalgic Scot, no doubt) and became the home of my childhood memories, of all our holidays, long hot summers, snowy winter weekends, and even two

heavenly years spent at Auld Reekie when my brother and I were not yet teenagers. We did not sell the house until 1989.

I must have been 10 or 11 when I first became aware of the mountain vegetation, the intoxicating smell of eucalyptus, shafts of sunlight through the grey-green canopy of gums and the sound of dry leaf litter beneath our feet. As children we roamed barefoot for miles, knew each stand of pine and distinguished the various eucalyptus for their climbing qualities. Auld Reekie itself occupied two blocks of land which could not have been called a garden, though my uncle did try to keep it cleared of encroaching bush because of the fire risk. He planted native trees, such as the silver wattle (probably *Acacia dealbata*) and several gaunt scraggy specimens of the New South Wales waratah (*Telopea speciosissima*) which were stunningly beautiful when in flower, Otherwise close to the house were unruly drifts of coreopsis and tiger lilies. Fortunately, there was no lawn to maintain!

About this time, in the town of Katoomba, naff little craft figures called Mountain Devils were sold to the tourists. We soon discovered how the devils were made. The seed capsule of a flowering bush, once the flowers had been fertilized and the seed dispersed, had the appearance of a devil's head, horny brown ears and sharply turned up snout (see photo page 9). In the appropriate season, we collected these, added the required flexible pipe cleaners for a body and dressed the figures in scraps of bright material and tried to sell them to local shops.

Some years ago, I went back to the area near Govett's Leap Lookout where, as children, we found our source of heads. The plants are still there, *Lambertia formosa* (of the Proteaceae family), a two metre bush with small pink-red flowers full of nectar for birds (photo front cover). When the flowers fall away, the seed capsules take on their anthropomorphic head, if you can call it that. However, I do not know if visitors to the Mountains still buy Mountain Devils.

My most intense memory is of a small deep blue flower which even today I cannot identify. But, I do remember in detail where it grew. A dirt track led from the bottom of our street into the bush for two or three miles to the Bridal Veil Falls, a waterfall of some 300 metres drop which fell into the Grose Valley. The stream arose near a concrete dam about 30 metres square which fed a faster descending stream flowing for a mile or so on to the Bridal Veil Falls. We spent a lot of play time at the Reservoir, as it was called, and in and around the pools and rocks below the overflow of the dam. It was here I used to find ferns of all sizes and shapes and at times a charming blue, three petalled flower, usually growing singularly, which had a smell like chocolate and indeed that is what we called it - the chocolate flower. It grew on the dry sides of the rocky path in leaf litter and I was told it was a native iris or lily. When I returned to the reservoir in the 1980s I could not find the sweet smelling flower

of my childhood. My guess is that it may have been a *Patersonia*, *P. sericea* or *P. fragilis*, though I do not know if the patersonias are scented.

Those formative years living in the Blue Mountains almost convinced me I would like to be an explorer or a botanist. But, I really wanted to be a painter, so when the time came I opted for the National Art School in Sydney.

Editor's note

I was greatly intrigued as to what Margaret's tiny blue flower might have been, so I sent her links to photos of potential candidates. She identified it as *Thysanotus tuberosus* (common fringe lily) and added a postscript to her article. For a good photo showing the feature to which Margaret refers, three very narrow petals and three much wider fringed ones (tepals, technically speaking) go to anpsa.org.au/t-tub.html.

Postscript from Margaret

Many thanks for finding my tiny blue flower. It wasn't the nodding chocolate lily, but another lily, the common fringe lily. I recognised it instantly. You will see that it has six petals, but only three would have been obvious to a child. As for the smell of chocolate, perhaps we had bits of chocolate in our pockets! But the smell of flowers is not often commented upon, and the Australian bush was full of wonderful smells. It is what I miss most about not living in Australia, the big skies and the delicate, delicious smell of the bush, and the birdsong.

ABOUT GROWING THYSANOTIS

Judy Clark

The fringe (or fringed) lilies, *Thysanotus* species, are (now) members of the Asparagaceae, and closely related to another genus with a misleading common name, the vanilla lilies (*Arthropodium*). There are about 50 species, many of which are endemic to West Australia, such as *Thysanotus multiflorus*. Others have a much wider distribution including *Thysanotus patersonii*, the twining fringe lily which is found in all states except Queensland (and which I have seen in the Otways in Victoria), and *Thysanotus tuberosus* which is found in all states except WA and Tasmania. What they have in common is a stunning beauty (photo page 10), and I can understand why these plants might be lusted after. But I have never tried to grow them.

There's a simple reason for this. A few years ago I considered buying a fringe lily for my mum's garden in Melbourne, but I was told that *Thysanotus* are not easy to maintain in cultivation. My mum didn't want a plant that was likely to die, and I didn't feel inclined to nurse a seed through germination only to find that it sulked when it grew up.

Nonetheless others do. Following a request for information about growing *Thysanotus* from seed, I put out a call in last May's issue of Pentachondra. Tim Darrington, the only member who responded, just confirmed my perception that fringe lilies are difficult.



An all female hiking party, taken in 1933. Margaret's mother is the girl at the end of the line, reading a letter (?) to her sister. Note the girl with the obligatory billy can for boiling the tea, which was surprisingly good with a lot of sugar.



***Lambertia formosa*, showing its fresh, tough leaves and a nice green 'devil's head' of a seed capsule**



A fringe lily, photographed near Perth. The correct colour is difficult to capture



Trochocarpus thymifolia

Snow damaged red flowered form showing branching structure

"I have never got any APS *Thysanotus* seed to germinate and I have been trying for several years with *T. patersonii*, *T. thyrsoideus*, *T. dichotomu*s and *T. sparteus*. I have managed to get *T. multiflorus* to germinate several times, but it was seed from the Australian seed company in Canning Bridge WA[1].

The *T. multiflorus* plant I have at the moment is actually one that self-seeded from a previous plant that I had but lost due to excessive cold. I recognised the cotyledon due to the characteristic 'barb' that it has, so I knew it was not common or garden grass! It is not easy to germinate and I have reason to believe that boiling water treatment for a few seconds helps. I pour a little boiling water over the seed, and then 3 seconds later add a larger amount of cold water so it does not cook! I have recently (spring 2014) resown a large quantity of seed of *T. multiflorus* (both from the Canning Bridge company and my own seed collected over the years) but nothing has happened yet. All this suggests that fresh seed is OK, but older dried out seed lacks viability or it is difficult to break dormancy.

In June, and after some hesitation because it has very fine roots like vermicelli which are very easy to break, I divided my existing *T. multiflorus*, and I nearly killed both halves. Now I have just one rather poorly looking plant: It has grown a few new leaves in last two months but I don't think it will flower in spring 2105 because it is too small."

Reference books provided more evidence, not just that *Thysanotus* needs careful handling but also that germination might be somewhat capricious. Barker *et. al.*[2], in reference to growing *T. multiflorus, T. patersonii* and *T. tuberosus*, state that fresh seed is most successful, bearing out Tim's experience. They also advise using smoke treatment and give germination times of 30 to 70 days. Speaking more generally, Elliot and Jones[3] note that germination rates are variable and may be improved by scarifying the seed before sowing. They too advise smoke treatment for *T. multiflorus*, and also remark on the successful use of tissue culture for its propagation.

Apparently fringe lilies often die after two to three years in cultivation, most probably because suitable fungal partners are not present. Looking on the web for more information I came across the work of Peter McGee[4], who was the first to observe the unusual way in which the (unidentified) fungal hyphae colonise *Thysanotus* roots, and showed that this association improved growth of species from southern Australia.

I noticed that Peter McGee's research dated from the early 1990s, at which point the penny dropped. Why hadn't I looked up past copies of Pentachondra? Surely some intrepid APS members had already tried to grow fringe lilies in the past? Of course they had. Not only have several articles on growing fringe lilies already been published; my predecessor (Sue Hyams) had also called for more information about growing them (issue 35, December 2005, page 12).

Wanted: travelling companion(s)

For trip to Perth and West Australia's national parks to see WA flora.

Dates: August 2015 or August 2016.

Contact Tim Darrington on 0033 4 74 53 36 68 or timothy.darrington@dbmail.com

The first mention of *Thysanotus* that I found was in issue 14 (May 1995, page 12). Jeff Layman, in a piece on growing West Australian plants, reported that while *T. multiflorus* germinated fairly well most of his plants died off after a couple of years. However, and he had no idea why, one did get to four years old and flower. In the next issue (December 1995, page 16) Tim Longville summarised his research into the matter, but if he actually grew a fringe lily I haven't found a report. However both Pat Anderson (issue 21, December 1998, page 6, and issue 23, December 1999, page 23) and Jeff Irons (issue 36, May 2006, page 14) did succeed. What they did provides a solid foundation for anyone who aspires to grow fringe lilies.

Pat, who may have purchased his *T. multiflorus* seeds from the same company as Tim Darrington, followed to the letter the instructions that came with them. "Fill a pot or a seed tray to within 2cm of the top with moist sandy soil, wet thoroughly and compress. Sow seeds thinly on the surface and cover with a thin layer of soil. Heap 7cm of dry leaves or crumpled newspaper on top of the soil and set alight. Remove any unburnt pieces. Water well, and cover with clear polythene which should be removed when germination commences in 2 to 5 weeks. Keep soil moist. Place in a warm shaded position to germinate." This is much the same as Tim Longville's research found, though he suggested an actual temperature, around 21°C".

Pat got his seeds to germinate. He'd clearly taken Tim's research to heart because he "wasn't going to be caught out by the absence of the dreaded mycorrhizas" if he could help it. So his medium for growing on comprised potting compost mixed with a teaspoonful of subsoil from under the clover in his lawn. This he divided between two 10cm pots, and to one of them he also added some soil from a pot containing a healthy *Eucalyptus pauciflora*. However it should be noted that this is not quite either of the methods Tim advocated: **either** a spoonful of garden soil in the potting mix **or** giving your *Thysanotus* babies a companion plant, a small daisy or a clover.

Whatever, Pat's approach worked. His plants grew handsomely and the emergence of tiny toadstools provided evidence that fungi were present in the pots. The plants were potted up again and spent the winter in his unheated greenhouse in north Yorkshire. The following year he got flowers, starting in mid-July, on a plant in its third year. His loving description of the flower bears out his delight, not at all dampened by the fact that the flowers of *T. multiflorus* only last about four

hours or so. "The flower, even when cramped by its fellows, is nonetheless a small stunner. The three petals, strongly ribbed with deep purple and made up of fine pink/lilac side ribs with a bright sheen like feathers, bursting free into down at the edges, and framing black anthers like a bee's proboscis. Around the flower the unopened buds retain their damson colour for weeks after their day of glory." Pat offered plants to APS members; I wonder if anyone took up the offer?

Jeff grew a different species, *T. tuberosus*, from seed given to him in the southern summer of 2000, was He didn't plant it till May 2001, so it wasn't fresh, but I'm sure Jeff would have stored it carefully. He reported that germination was "quick", without smoke or any other treatment. He grew the seedlings on in tubes using a mixture of equal parts peat, leaf mould (conifer plus deciduous) and garden soil. At the end of the summer, by which time every seedling had tubers on its roots, they were transplanted to a greenhouse bed. The foliage died back and when the plants did not resprout in the spring Jeff thought they had died. But, as he later realised when new leaves appeared in August, this was just its growth pattern. *T. tuberosus* flowers in summer, before new leaves develop. Alas, Jeff does not seem to have reported whether his plants ever flowered, just that they had not done so by summer 2005. Does anyone know?

Putting this article together has not changed my view that growing *Thysanotus* is likely to be hard work. But it has changed my assessment of whether it would be worth doing. If I can get some seed I think I'll give it a go. After all, *T. tuberosus* and *T. isantherus* were cultivated In England as early as the 1820s. Armed with so much more information than was then available, I should be able to do so too .

Notes and References:

1 Probably no longer in business. Nindethana (nindethana.net.au) offers seed of 5 species of *Thysanotus* including *T. multiflorus*.

2 Barker, J., Campbell, A., Candy, F., McAllister, P. and Schaumann, M, 2009, **Collect and grow that seed**, pages 96-7

3 Elliot WR and Jones DL, 2010, **Encyclopaedia of Australian Plants suitable for cultivation**, volume 9, pages 284-297

4 http://mycorrhizas.info/ozplants.html

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Back issues of Pentachondra looking for a new home

In exchange for a small donation to charity. Recipient to collect from near Worthing, West Sussex.

Contact Greg Plenty at gregplenty@hotmail.co.uk.

PENTACHONDRA (THE PLANT)

Robbie Blackhall-Miles

When I first heard that our society journal was called Pentachondra my immediate reaction was "what's a Pentachondra?" I googled it and

was really quite unimpressed with what I found: a tiny little mat forming plant with white five petalled flowers and red berries. I wondered what is so special about that? Why isn't the newsletter called Banksia or Anigozanthos or even Xanthorrhoea?

Then, sometime later at one of the AGMs, the subject of changing the newsletter's name came up. Luckily a decision wasn't reached. I say luckily because if the name had been changed I maybe wouldn't have given Pentachondra another thought. As it happens, Pentachondra the newsletter remained in my mind and so did the diminutive little plant.

So 'What is *Pentachondra*?' It's a member of what was once the Epacridaceae, which has now joined the rest of the heather family in the Ericaceae, where it sits in the section of the Ericaceae called Styphelioideae. Its closest relatives, that you may have heard of, would be things like *Richea* and *Dracophyllum*. Vaguely, in the grand scheme of things, it's kind of related to *Vaccinium*.

Known as the fringe heaths, there are just four species and only one of these has made its way into horticulture in the UK at any point. The, at first glance uninteresting, flowers hold a fringe of white filaments down the edge of each petal. This makes them delicately interesting and worth closer study.

Pentachondra pumila has a distribution in both Australia and New Zealand, making it one of just a handful of species that are fully Australasian. It bears its sweet red berries alongside its fringed flowers which provides quite a colourful display of spring and winter on the same plant at the same time (photo, back cover).

The carpet heath creates a dense mat on the ground where it grows, stabilising the fine peaty soils and allowing other plants to grow. However it's the unseen aspects of *Pentachondra* that have grabbed my attention. Although its flowers are bisexual it requires pollination from a genetically different individual in order for it to produce those tasty red fruits. The fruit that is formed is eaten by birds and mammals, the seed eventually finding a place to grow. However it won't grow unless it comes into contact with a mycorrhizal fungus, unique to the Styphelioideae, which will allow it to gain the nitrogen it requires from the nutrient poor soils that it colonises. For me this unseen aspect of *Pentachondra* gives it much deeper interest than I assumed on first sight.

Simple and white, covers New Zealand and Australia, worth closer study, of deeper interest than that assumed on first sight, and available in spring and winter: it sounds to me like our society newsletter should remain named Pentachondra.

Eremea beaufortioides

Pentachondra issue 51 December 2013, page 21, photo of unknown species of Myrtaceae - that's what it is! Unfortuantely unlikely to grow outside a glasshouse.

TROCHOCARPA THYMIFOLIA

Gary Dunlop

I first came across this small evergreen shrub, a member of the Ericaceae, over 20 years ago at Guincho, the remarkable garden of the late Mrs Vera Mackie, near Helen's Bay, County Down[1]. Over 30 years she had built up a large collection of many rare and unusual trees, shrubs, herbaceous plants and bulbs, which fortunately has been well maintained by successive owners of the property. It must have been labelled for me to discover the name as I had not seen before. It formed a low mound of very small dark green leaves over fine dense twiggy branches. I don't even think it was in flower, though as the flowers are often buried within the foliage they would not have been very conspicuous.

It was quite a few years later before I came across the name again, when Jeff Irons asked me if I knew the plant. Surprisingly, the name had stuck in my memory, and I was able to tell Jeff that I had seen it at Guincho, adding that it was not very large, being a low mound about 1.5m long and 0.9-1.2m across and high. Jeff was surprised, as that was apparently unusually large for a plant in cultivation, though when I had first noticed it the plant was probably at least 20 years old.

It was quite a few years a later before I eventually acquired a small plant of the red flowered form (photo page 19) for my County Down garden, probably from Keith Lever of Aberconway Alpine Nursery. A few years later Jeff kindly gave me a plant of the white flowered form (photo page 19), which I planted 0.9m away from the larger established plant of the red flowered form. Both have grown well and have all but merged; I should have planted them even further apart. The white flowered form seems the more floriferous though maybe that's because the flowers are more obvious as most of them are on the surface of the plant, making it a little more showy, though many of the flowers of the red form are also visible on the surface.

I was surprised that the younger plant was the first to start producing its pale lavender coloured berries, which are quite large for a small compact plant. To date it is the only one that does. Jeff was able to confirm that this is usual in the UK. Obviously whichever insect pollinates the plant here is not attracted to red flowers. The plants can flower over quite a long period, from as early as March, and probably reach the peak of flowering in July, tailing off in August. New flower buds seem to form in autumn in the red form, maybe because it does not make berries.

My red flowered form has reached about 1m high and 1.2m across, but is now disfigured with several branches being broken off at the base when the shrub was buried in snow in a 36 hour blizzard last March. In effect a 90^{o} wedge was removed from the shrub, providing a clear view of the structure of

branching (photo page 10). The smaller white flowered form suffered even more with about half of it being broken off, and some of the remaining branches killed, so it looks a rather sorry sight.

Thymeleaf purpleberry, to give the species its common name, is a Tasmanian endemic. Its distribution is quite widespread in wet subalpine forests and in more exposed sites among boulders. It requires a free draining acid soil and can apparently reach about 0.5 to 1.5m high and 1 to 2m across. The new growth is reddish, no doubt as a protection from ultraviolet light until the leaves mature.

Two well illustrated books of Tasmanian plants [2 & 3] provide good illustrations of the red flowered form with new flowers beginning to open alongside the lavender berries. The latter also provides much more detailed information about the species, including its habitat and distribution. A third book[4] illustrates the white flowered form along with a brief description.

Trochocarpa thymifolia may not be a particularly showy plant but it does have a subtle charm. It is likely to only grow well in the moister or more humid western parts of the British Isles. It is not widely available [5], but it does deserve to be more widely grown.

Notes and References:

1 Connolly, S. and Dillon, H. eds., 1986: **In an Irish Garden**. pp86-89. Weidenfeld & Nicholson, London.

2 Minchen, R.F., 2005: **Wild Flowers of Tasmania: A Field Guide** pp58-9. Peregrine Pty.Ltd,. Kettering.

3 Howells, C., ed.. 2012: **Tasmania's Natural Flora** 2nd edition p165.

4 Simmons, M, Wapstra H. and A, eds,. 2008: **A Guide to Flowers & Plants of Tasmania**. pp52-3. Launceston Field Naturalists Club, Launceston.

5 Both colour forms, and a couple of other species in the genus are available from Thuya Alpine Nursery, Glebelands, Harpury, Glos. No postal service, but they deliver to AGS shows.

LOGAN BOTANIC GARDEN

Jeremy Spon

Having driven all the way to Scotland for the AGM, it seemed a waste not to stay for a few days and take the opportunity to go to Logan for the first time. It is a garden I have long wanted to visit, as its location allows many southern hemisphere plants to be grown outside which would need greenhouse protection elsewhere; here are my impressions.

Although the weather looked quite threatening in the end the rain relented, and most of our time there was dry. Logan does not have large areas under glass, just a small brand new display house known as the 'Conservatory', at the time of our visit mainly stocked with South African plants. Instead, the generally very mild climate allows many tender plants to be grown outdoors. Some of these have made huge specimens. *Leptospermum lanigerum* has made a medium sized tree in several places, all covered in flower and some with massive

trunks; *Acacia longifolia* and *A. melanoxylon* have also grown to a good size. *Kunzea ericoides* is also almost tree-like, and there is as good a variety of *Olearia* as I have seen anywhere, including the spectacular pale violet-blue flowered *O. chathamica* (photo page 20).

It was instructive to see three species of *Cordyline* planted next to each other, which enabled easy comparison (photo page 21): the familiar *australis,* the less common *indivisa*, and the rarely seen *banksii.* The last named I thought in some ways the most attractive, making a dense clump of stems sprouting from the base, with long narrow leaves and many flower stems. A fourth species, *obtecta* (labelled *kaspar*, which is a synonym, according to the Plant List), is also grown, in the walled garden. This is of course the most sheltered part of the gardens, and a south-facing terrace here is home to some new plantings which are presumably quite experimental, including *Darwinia taxifolia* and *Grevillea barklyana*, both in flower.

One other area which deserves particular mention is the 'Tasmanian Creek', a shallow valley planted with eucalypts and underplanted with tree ferns and various Tasmanian shrubs (photo page 20). I always enjoy seeing this kind of naturalistic planting, which is enhanced here by a viewing platform which allows you to look down on the crowns of the ferns. (It is also reassuring to see the tree ferns planted under the canopy of trees, rather than exposed to full sun as happens in all too many suburban gardens!)

It is always interesting to see large specimens of plants of doubtful hardiness in a garden like Logan which, although generally mild, gets occasional severe winters. I have been unable to find detailed weather records for the garden, but a display on the history of the garden did show photographs of heavy snowfall, and a minimum of -10.5º C has been recorded. Some of the tree ferns are bubble-wrapped for winter protection, but many of the larger shrubs and trees must have survived several quite hard winters, which gives us all encouragement to keep experimenting with plants often thought to be too tender to grow outdoors.

THE NEW ZEALAND PLANT GARDEN AT HAMPTON COURT FLOWER SHOW

Gary and Maria Firth

We first showed at the RHS Hampton Court Flower Show in 2013 when we displayed a representative range from our National Collections of myrtles (*Lophomyrtus, Luma, Myrtus* and *Ugni*) in the Plant Heritage marquee. We were rewarded with an RHS Silver medal, judged under the Lindley judging criteria, for our efforts.

Having really enjoyed the experience we decided to try something slightly more ambitious

for 2014: a New Zealand plant garden, using our collection of New Zealand *Lophomyrtus* as the backbone of the display but shown in the context of a range of other plants of New Zealand origin. The Plant Heritage marquee at Hampton Court is specifically dedicated to showing plants from some of the 630 or so National Plant Collections that are currently recognised throughout the UK and Ireland. Judging is according to the Lindley criteria, which places a particular emphasis on the scientific or educational merit of the display. We therefore chose to highlight the conservation status of our chosen plants both in the wild and as species and cultivars grown as garden plants in the UK. In particular we wanted to use our display to show how the Plant Heritage Threatened Plant Project was being used to support National Plant Collections, and the new Plant Guardian Scheme[1].

We were allocated a background display of 16ft x 6ft (about 5 x 2m) by the RHS, quite a large area to cover when you are an amateur grower with a relatively limited size garden. Although we already had a number of New Zealand plants available in addition to our *Lophomyrtus* (in particular several varieties of *Arthropodium*) we spent the nine months leading up to the show sourcing other suitable seeds and plants. In the end we settled on eight different genera.

- *Lophomyrtus bullata* plus a range of *L. x ralphii* cultivars including 'Black Pearl', 'Gloriosa', 'Kathryn', 'Little Star', 'Magic Dragon', 'Multicolor', 'Pixie','Red Wing' and Logan's form. All were large plants ranging from 2ft to 6ft high and growing in 15 litre containers.
- *Arthropodium cirratum* plus *A. candidum* 'Purpureum', the latter conserved within the Plant Guardian scheme.
- *Acaena buchananii* plus *A. microphylla* 'Copper Carpet' and *A* 'Bronze Beauty'. 'Bronze Beauty' is considered threatened in cultivation in the UK and is registered with the Plant Guardian scheme.
- *Myosotis capitata*, another plant which is quite difficult to find in the UK.
- *Leptinella potentilla* and *L. squalida* 'Platt's Black'.
- A variety of colourful *Coprosma* cultivars. These are slowly becoming more available in the UK and were used to illustrate a genus for which there are currently no National Collections.
- Several *Hebe* cultivars were sourced fairly late in the day, including 'Autumn Glory', 'Champagne', 'Nicola's Blush' and 'Oratia Beauty'.
- A number of *Haloragis* 'Wellington Bronze' were raised from seed; fortunately these come fairly true.

After a few last minute problems with transport we set up the display (photo opposite) over the weekend prior to the show. Plants were staged in two tiers, with the *Lophomyrtus, Hebe* and *Coprosma* at the back and sides of the display and the lower growing *Acaena, Leptinella, Myosotis* and *Haloragis*





***Trochocarpus thymifolia*, thymeleaf purpleberry**
Gary Dunlop's garden



The New Zealand Garden at Hampton Court Flower Show

Logan Botanic Gardens

right:
***Olearia chathamica*,**

below:
the Tasmanian creek







left
Logan Botanic Gardens

from left to right
***Cordyline banksii*,**
***C. indivisa*,**
C. australis

below
Plas Newydd, resting and tree hugging







Melba Gully - temperate rainforest in Victoria



***Blechnum nudum* at Trewidden Garden, Cornwall**

arranged in a semi-circle at the front. All pots were covered in 'Strulch', a lightweight straw mulch which was much lighter and easier to use than the more usual bark or gravel. Judging takes place on the Monday afternoon followed by a gala evening when the show officially opens to the public. It then runs for a further 6 days until the following Sunday. Since we were travelling each day from Haywards Heath in Sussex it made for a very long week. We were rewarded however on the Tuesday morning with the news that we had once more been awarded an RHS Silver medal.

The display attracted a lot of interest from the public although it was very noticeable how the knowledge and interest and types of questions changed from the RHS members days to the public days later in the week. When you are very familiar with these plants it is easy to assume that everyone else also has a certain level of knowledge of them, hence it was interesting to hear just how many people expressed surprise that hebes originate from New Zealand. A useful lesson when producing educational information to accompany the display!

It was a long and tiring week but also very enjoyable. We must have spoken to hundreds of people, made some very useful contacts and also sold over 150 myrtle plants. Will we be back next year? Well that rather depends on the RHS but maybe look out to see if you can find the Chilean Myrtle Garden in 2015?

Note

1 See the Plant Heritage website www.plantheritage.com for further details of the Threatened Plants Project, National Plant Collections and The Plant Guardian Scheme.



TEMPERATE AUSTRALASIAN FERNS

Ben Ram

When people think of Australasian plants, often it's the ones that grow in the Mediterranean climate zone of Australia, where they need to deal with heat, drought and fire, that come to mind. Also, plants from the alpine areas of New Zealand often take the limelight. There are, however, a whole host of plants from the moist, temperate rainforest gullies and mountains that often get overlooked. Among these are many species of ferns that like humid shady conditions and which thrive in areas with a moderate climate and high rainfall (see photo opposite).

Here in North Wales there are areas that receive enough annual rainfall to be considered rainforests themselves. In our garden in Llanberis we get about 2000mm per annum and in Capel Curig, 17km from us, they see 3500mm per annum, but over towards the coast in Holyhead barely 600mm of rain falls per year. Tree ferns in Holyhead would require a substantial amount of extra watering whereas here in Llanberis they rarely do. Below is a list of

Australasian ferns we are growing, many of which are doing well, along with some notes on each.

Dicksonia antarctica

This is the most commonly cultivated tree fern, available in most garden centres and even DIY stores! Most of the plants brought into British cultivation have come from land clearance sites in Tasmania and south-eastern Australia. Unfortunately only a small proportion of those shipped to the UK actually find their way to suitable homes. The large majority die so on after import. However they are the easiest to keep alive, tolerating sunshine if kept wet and seeing off temperatures as low as -13ºC if not more. When grown in sunshine or drier conditions, their fronds are smaller and so lose some of their appeal aesthetically. In some Cornish gardens they reproduce easily without human intervention. Indeed the second generation at Trewidden Gardens are now trunked specimens themselves. We have one 1.5m specimen which produces 1.5m fronds annually. We also planted a small one at the base of the big one. It went in the ground 3 years ago with fronds up to 30cm long and no trunk, but which now has fronds to 1m long and is forming a three-headed trunk.

Dicksonia fibrosa

This species is superficially similar to *D. antarctica* but the pinnules or their segments are concave in places, giving the frond a crimped appearance and rough texture. It's not quite as hardy as *D. antarctica*, although it experiences temperatures as low as -11ºC in its native New Zealand. It also never grows as large as *D. antarctica* , although our two have put on 10cm of trunk in the past two years. Interestingly they seem to continually put out one frond at a time throughout the growing season, unlike *D. antarctica* which produces one big flush in late spring.

Dicksonia squarrosa

This is the most common tree fern growing in the wild in New Zealand. It grows at altitudes from sea level up to 760m as forest understorey and has a thin, dark, hairy trunk that grows comparatively quickly. We only have a small trunk-less plant of this and given that it is only hardy to about -4ºC it will probably be staying in its pot for a while longer. It like lots of humidity and moisture, so we keep it sitting in a tray of water at all times.

Cyathea australis

This is probably the only *Cyathea* tree fern with a chance of being hardy in the UK. I have seen it growing in the Blue Mountains of New South Wales at much higher altitudes than the *Dicksonia antarctica* in the same regions so it makes sense that it can handle more exposure to light as a result as well as temperatures down to -12ºC. Ours has seen -6ºC so I guess that isn't really a test. It lost all its fronds, but then even in the wild it is deciduous. Having said that, in the mild winter just past it kept all its fronds green. Ours is approaching 1m in trunk height, and in the wild they can grow to 5m.

Cyathea smithii
This tree fern grows further south than any other tree fern, coming from New Zealand as far south as the Auckland Islands. It can handle frosts to -4°C but only as a mature specimen and prolonged freezes may still kill it. So again it lives in a pot for this reason. The soft fronds are very beautiful indeed.

Cyathea cooperi
We bought a small plant in a 5cm pot last winter, which we kept in the bathroom for added humidity until it could be potted up in the spring and kept outside for the summer. It won't tolerate frost (it comes from Queensland) so it will be coming back into the bathroom every winter until it outgrows the space available. Judging by the rate it is growing this might not be that long. It already has foot long fronds and it is known to be very fast growing.

Todea barbara
This is a really lovely fern from damp gullies in Australia, New Zealand and South Africa. Since it is in the family of Osmunda ferns it produces green spore which must be sown fresh, so buying spore to sow is often a futile effort. This year our plant set spore, which we have collected and sown, so fingers crossed we have lots of little ones soon (photo in issue 51 page 22).

Blechnum nudum
This is a tree fern but can be seen growing in mounds and is very common in Australia, growing in wet areas in all states apart from the Northern Territory and Western Australia. It can form large colonies and if the main trunk is killed it may re-sprout from the base. Indeed the trunked specimen we have in the ground lost its topmost growing point when we got -6°C but has since made a new growing point further down. There are reports of some being able to handle -10°C but I think that is pushing it. They grow on creek banks in the wild, so love water and can even be sat in water all the time. Due to its small stature this can be grown well as an understorey to larger tree ferns (photo page 22).

Blechnum novae-zelandiae
As the name suggests this fern is from New Zealand. It does however have the synonym *Blechnum capense* and indeed grows on the cape of South Africa. It can form vast stands along roadside banks in areas of high rainfall and has fronds of up to 2m in length. In cultivation it has seen -8°C when it will die back to the ground and then re-sprout. Its new fronds are red which is very ornamental. We planted one in the garden this year so fingers crossed it does well.

Blechnum penna-marina
This is a little creeping rhizomatous hardy alpine fern that comes from all over the southern hemisphere. It does very well in the UK spreading to form a lovely carpet of small fronds which can be coppery when new.

Doodia australis
One of our favourite ferns in the garden, its coppery pink new fronds are a pleasure to see and are produced haphazardly throughout the year. There is some confusion between this and *Doodia media* (not as hardy), with *Doodia media* subsp. *australis* also being used. In

2011 a study showed *Doodia* to be paraphyletic with respect to *Blechnum* and so these have now been transferred to *Blechnum medium* and *Blechnum parrisii,* which will no doubt confuse the horticultural trade even more. This fern can be found in New Zealand and Australia, and is well worth a try in a sheltered spot.

Histiopteris incisa

The batwing fern is found in both Australia and New Zealand . It is not often sold in the UK but arrives as a stow-away on other plants. It spreads readily and at Logan Botanic Garden the mild climate means that it has done particularly well; they have quite a large patch of it. Our plant seems to put up just one or two almost glaucous, rubbery fronds at a time. These unfurl elegantly, in the same way as bracken.

Pellea rotundifolia

I saw this fern on sale for £1.50 in a 7cm pot in the conservatory plants section of my local garden centre three years ago. Not knowing any better at the time I planted it in the shade of *Wollemia nobilis*, where it did very well over the summer. My thinking was that it would succumb to the frost, a bit like summer bedding. Indeed that winter we saw numerous frosts, the coldest of which was -6^{o}C and by early spring the *Pellea* was crisp and brown. I figured I would replace it for the coming summer with another from the garden centre once the chance of a frost had past. So it was that in late May, having bought said new *Pellea*, I came to dig the original plant up when I noticed it was sending up new fronds. The new one I had just bought got planted in another part of the garden and both now seem to be doing just fine. In the last mild winter the fronds even stayed green throughout. I guess this teaches me a lesson about doing some research first. In fact this species comes from temperate regions of New Zealand and prefers acidic and very free draining soil, handling drought and sunny conditions well.

Polystichum proliferum

As its name suggests, this ground fern can reproduce via bulbils that form along the frond and then form their own plants when the frond collapses to the ground. It seems to thrive in our garden, putting out one or two flushes a year of fronds to 1m in length. In a mild year these will be green all winter. This is no surprise since it comes from cool moist areas at high altitude in Victoria, Tasmania and New South Wales.

Polystichum vestitum

Although this is generally thought of as a ground fern, ours has a short trunk of 30cm and in very old specimens this can be up to 70cm. Coming from as far south as Macquarie Island (about halfway between New Zealand and Antarctica) , it is very hardy and enjoys plenty of rain.

Asplenium bulbiferum

Native to Australia and New Zealand, this is really is a house plant, though it can go outside in a shady location over the summer. Its elegant fronds produces bulbils at the ends allowing for easy propagation. For this reason I would

assume that most plants in cultivation are in fact clones.

Asplenium* 'Maori Princess' *(A. bulbiferum x A. oblongifolium)
Asplenium bulbiferum and *A. oblongifolium* hybridise naturally in the wild in New Zealand. Mrs Shallcras from Nelson, whose father was a Maori chief, gave Chris Goudey a particularly good form of this hybrid to introduce into cultivation. He named it 'Maori Princess'. Again this fern will not like frost but can be grown in a cool moist environment.

Adiantum hispidulum
This small maidenhair fern comes from all over the southern hemisphere. Not quite the elegant fern that we think of when we think of adiantums but it is very beautiful in its own right. It comes into growth very late for us each year, causing me to worry that it may have died. Its new growth is flushed coppery pink, full of anthocyanins that may be a form of sunscreen for its tender new foliage.

Microsorum pustulatum
This fern, found in both Australia and New Zealand, came to us as a hitch hiker on a dead *Cyathea* trunk. Although potentially quite hardy (given free drainage) we grow this plant in a fish tank inside. Once it gets bigger we will definitely be planting a piece of it on one of our tree-ferns.

Ptisana salicina
The king fern of New Zealand is from the family Marattiaceae and is one of the earliest evolving 'true' ferns. It is also one of the biggest ferns in the world with the potential to grow fronds up to 3.7m long. We have two small plants in pots at the moment; goodness knows what we will do with them when they get to their potential eventual size.

We also grow a few other southern hemisphere ferns in the garden.

Lophosoria quadripinnata
This is a spreading ground fern found in the americas from Cuba and Mexico to Chile and Argentina. It has massive fronds with a hairy base and almost white undersides. It is not always easy to acquire, but having seen a handsome clump growing in a front garden in our village, we figured it was worth the effort. We planted it 2 years ago and have not looked back. It stays green all winter and we only remove fronds that start looking old. Fossils of *Lophosoria* have been found dating back to the early Cretaceous. DNA evidence has shown this genus to be a *Dicksonia* relative.

Blechnum cycadifolium
This fern really does look like a cycad. It comes from the Juan Fernandez Islands off the coast of Chile and is quite new to cultivation so its full hardiness is not yet known, though it has seen -8ºC at the Royal Botanic Gardens Edinburgh with polycarbonate boxes over the plants for protection. Plants are not often available to buy but spore is more readily available. We only have one plant of this in a pot and it is currently too small to plant out, so we will see if we get brave enough to do so in the next few years.

Blechnum palmiforme
This rare tree fern from Gough Island (uninhabited apart from six seasonally rotating scientists) in the

South Atlantic is truly remarkable. There are many plants of it growing at Logan Botanic Gardens and indeed it seems to being doing well there, I guess because of its maritime location. Its common name is bog fern and it likes to be wet and cool but in an exposed position. Plants of it that were protected with fleece in cold weather did not do so well because the lack of air movement.

Blechnum chilense
This evergreen spreading ground fern from Chile is considered hardy in most parts of the UK and can be quite vigorous when it is happy. It is commonly available to buy and indeed is also sold under the names *Blechnum magellanicum* and *Blechnum tabulare*, probably for financial reasons since these are much rarer. We did have this in the garden but our climate is too kind to it and it was taking over, so it went to a much larger friend's garden where it can be strimmed to prevent it spreading too much.

Blechnum tabulare
This South African tree fern has stiff waxy evergreen leaves and could be mistaken for a cycad. It can handle lots of sun and even re-sprouts after being burnt in a fire.



BEERVELDE PLANT FAIR

Jeremy Spon

Members looking for unusual plants (which presumably is all of us!) might like a reminder of the hugely enjoyable plant fair held twice-yearly in Beervelde Park, a private estate near Ghent in Belgium, which I mentioned briefly in my article on *Odixia angusta* in the May issue of Pentachondra. I have been to this fair a few times, and each time have found something new and rare which I had never seen for sale in the UK.

The event is actually much more than a plant fair, although there are many nurseries present, the vast majority of which never attend plant fairs in the UK, and many of which sell plants which are rare or unobtainable here. There are also (very tasteful) craft stalls, garden sundries, pots, sculptures etc; in fact it is a full-blown garden show, similar in scale to Hampton Court but without the expensive (and often tacky) show gardens and the rampant commercialism! The layout and atmosphere is charmingly relaxed, with the nurseries and other stands spread all round the parkland and estate buildings, and the catering is low-key but good.

It is possible to visit on a day-trip from the south-east of England, but it is a long day, and staying nearby over the weekend is probably a better bet, as it would give you more time to spend in the fair. The next event is on the 8th, 9th and 10th May 2015, and more details can be found at www.parkvan beervelde.be/en/home. At a current price for advance tickets of 8 euros, it is much cheaper than any of the RHS shows, and I personally think much more enjoyable - highly recommended if you can get there!



GARDEN REPORTS

Tarragona, Spain

In the May issue of Pentachondra (52, page 30) I reported on how my Australasian plants had fared since we relocated in August 2013 from mild and wet west Cork in Ireland to hot and dry Tarragona in north east Spain. Here's an update.

Firstly, the restios. *Aspodasmia similis* and *Tremulina tremula* have both got new culms emerging but neither of them looks lush; hopefully some rain will freshen them up. *Baloskion tetraphyllum* died, but today I am smoking more seeds from APS as the diurnal temperatures are varying by more than 10 degrees, I will be placing the seed trays outside to maximise the variance in temperature, but then of course run the risk of unwanted seedling weedlings. At least I know what *Restio* seedlings look like.

Some cordylines are doing well, for example *Cordyline obtecta* 'Green Goddess', *C. australis* 'Torbay Dazzler' and *C. australis* 'Karo Kiri. However one of the *C. parryi* died as did *C. australis* 'Purpurea' and also *Corynocarpus laevigatus* (karaka or New Zealand laurel). *Dodonaea viscosa* (sticky hop bush) did not like being uprooted by wild boar and promptly died. Neither did *Scleranthus biflorus* (knawel or cushion-bush). The one that was untouched by the boar is growing well whilst the other died. *Orthrosanthus multiflorus* (morning flag), despite being uprooted, went on to produce its lovely blue flowers.

Metrosideros bartlettii (Bartlett's rata), *M. robusta* (southern rata) and *M. excelsa* (pohutukawa) are all still looking good. *Grevillea robusta* (silky oak) does much better here than in West Cork. They are grown as street trees in parts of Tortosa (our nearest large town). I have also spotted a couple of large banksias in the outskirts; I must have a closer look. *Billardia heterophylla* (bluebell creeper, synonym *Sollya heterophylla*) has produced seed pods but the seeds are still green unfortunately.

Corymbia ficifolia loves it here and of the three I brought from West Cork (all grown from APS seed) the two that were untouched by the boar are doing really well. I have propagated more this year from APS seed to give to gardening friends. On the other hand *Eucalyptus leucoxylon* subsp. *megalocarp*a (APS seed) burnt up and died.

Paraserianthes lophantha (Cape Leeuwin Wattle) is definitely the star plant. It doesn't mind the heat, the wind or the lack of rain. I gathered seeds and they all germinated.

Acacia floribunda has flowered but there are no flowers on *A. cultriformis* as yet. The *A. dealbata* that was already in the garden has masses of flower buds just waiting to burst out in February. The bottlebrushes *Callistemon viminalis* and *C. pallidus* are both thriving. *Grevillea* 'Canberra Gem' is obviously caviar to snails as it attracts loads of them. There is a large snail population here so one of

the daily garden chores is picking snails off plants.

It has been a long hot dry summer with high humidity for weeks on end so the plants have been really tested and I am very pleased with the survival rate of Australasian plants. Although they are not looking lush they have survived their first Spanish summer.

Phemie Rose, October 2014

PS. I have been trying without success to germinate *Metrosideros fulgens* and *Chamelaucium uncinatum*. Any advice would be welcome.

Menton, France

The photos opposite show *Freycinetia banksii* in the early stages of flowering (the one with 'sponge fingers') and then a few weeks later. I have usually had one flower a year in total although I have seven or eight plants, but this year I have had eight flowers all in the same part of the garden, though I can't swear they are all on the same plant. This is a flower I didn't see in all my childhood in New Zealand although I certainly saw plenty of *Freycinetia* in the bush. In New Zealand the possums and rats devour the flower which is very sweet, tasting, like vanilla. I sampled it for the first time this year.

Freycinetia is in the pandanus family (Pandanaceae). *F. banksii*, a New Zealand endemic, grows in montane forests where it is a rampant vine, clinging to trees and other supports.

Alexandra Boyle, May 2014

When in France ...

Alexandra welcomes informal visits to her garden, which includes New Zealand and Lord Howe Island plantations. Contact her on antipodes87@mac.com

Schoonebeek, Holland

Acacia pataczekii (photos opposite) was grown from seed from Wildseeds Tasmania. The plant, now approximately 2m high, is from spring 2013. I`ve grown this plant since seed germination in Rootmaker pots, so it will settle very quick in my garden and it must have hundreds of roots pointing in every direction. The white rootmaker bag got a few benefits, the soil temperature will be lower than in black pots and you won't have root damage by the sun.

Acacia rubida didn't match for years with my idea of what it looks like, but suddenly it makes now the eucalyptus looking leaves. The plant is now maybe 3m high and it is extremely cold tolerant.

I also grow *Acacia angustissima* var *suffrutescens* (a synonym for *Acaciella angustissima*). It is native to Arizona (and maybe Texas). I received information from the USA that this variety of the species comes from the northern end of its range. It grows as a multiple-stemmed subshrub to 2m tall with stems that typically die right back in winter. As it comes from colder, and wetter, higher elevation locations than most other acacias it might do well in the Dutch climate,

Maurits de Vries August 2014



Freycinetia banksii **flowers**
early stage 'sponge fingers' (left)
a few weeks later (below)





Maurits de Vries with *Acacia pataczekii* and a close up of its perfect rootball





Wakehurst Place
clockwise from top
***Callistemon* in flower**
Viola hederacea
Bracteantha bracteata
'Dargan Hill Monarch'
Lomatia silaifolia







2014 MEETINGS: REPORTS

The Glasshouses at RBGE

Jeremy Spon

It is just as well that alongside all its other attractions the Royal Botanic Garden Edinburgh has a spectacular range of glasshouses. No sooner had we concluded our AGM and set off to look round the gardens, than it started to rain, and the rain soon became a downpour. So having had a brief look at the outside alpine display, we took shelter in the series of ten linked houses, which together contain a huge and hugely varied collection of plants from many different climate zones and habitats. Of course we paid particular attention to those from Australasia, but it was impossible not to be fascinated by those from other parts of the world as well. I was particularly struck by how different the collections are from those at Kew; Edinburgh clearly has its own specialities, one of which is ferns. In fact such was the enthusiasm of our chairman Robbie Miles and webmaster Ben Ram that at times it seemed we were turning into a fern society!

The biggest selection of Australasian plants is in the Temperate House, which is the largest of the ten. The generous height of this building has allowed many specimens to grow to considerable size. Among many others, I noted *Melaleuca elliptica* in full flower, fine plants of *Acacia falcata,* from eastern Australia, and the conifer *Dacrydium dacrydioides* from New Zealand. A raised walkway along one side of this house allows excellent views of the crowns of the taller plants, which we were later able to view at the lower level after returning from the various tropical houses. Another highlight was the superbly landscaped Arid Lands House, where again ferns were the focus of attention - not many being Australasian, but none the less interesting for that; it was amazing to see so many species from habitats with which one does not associate ferns at all.

One other feature which everyone commented on was the general health of the plants and the absence of pests, a testament to the skills of the horticulturalists at Edinburgh. Although we had most of the afternoon to look around, we could hardly do these amazing collections justice, and if the weather had been good enough to walk round the outdoor collections as well, a whole day would not have sufficed. It is nearly thirty years since I last visited RBGE; I will certainly not wait that long to visit again.

Wakehurst Place

Judy Clark

Antipodean plants have been grown at Wakehurst since Gerald Loder purchased the gardens in 1933, but in recent years the southern hemisphere garden has undergone substantial enlargement and rearrangement. A warm July day was a perfect time to explore the plants from Australia, New Zealand,

South America and South Africa that Wakehurst now has to offer.

The first that caught my eye was an unlabelled violet in the border by the house (photo page 32). I am reasonably sure that it is *Viola hederacea*[1] which is found in eastern NSW, southern Victoria, Tasmania and south eastern South Australia. A low growing plant, it is usually found in drier areas in open forests and prefers some shade. I have tried to reproduce these conditions in my garden so I can plant out the specimen I bought several lant several years ago from County Park Nursery. But while it likes my greenhouse it has so far sulked elsewhere. Yet here it was thriving, in full sun.

Along the monocot border, so called because it is confined to plants with a single seed leaf (like grasses, irises and lilies), we were able to admire a variety of Australasians including the flax lily *Dianella nigra*. We had hoped to see *Blandfordia punicea* in flower but it was already over, maybe because of warm weather arriving so early on in the year.

The Southern Hemisphere Garden itself now comprises sixteen beds and the promised changes, both the plants and the design, did not disappoint. Some of the species I remember from previous visits are still there, including *Eucalyptus coccinea* and a big old *Hakea microcarpa*. A large *Callistemon* (labelled *subulatus* but possibly *linearis*) was in full flower (photo page 32), as were many of the newly planted tea trees (*Leptospemum*), not to mention a stunning show of South African species including *Berkheya*, *Dierama*, *Crocosmia*, *Watsonia* and *Felicia*.

Others will have their favourites; I was particularly taken by two plants. The first was *Lomatia silaifolia*, of which there are several large specimens. They have lovely bright green fern-like leaves and racemes of creamy white flowers (photo page 32) which reminded me a bit of some of the grevilleas. This is not surprising as lomatias belong to the same family, Proteaceae. I don't know lomatias at all well and I was interested that *L. silaifolia* is apparently hardy at Wakehurst; the plants looked too big to protect easily and there was no sign of their being grown in pots sunk into the ground.

So when I got home I looked it up[2]. Among other names *L. silaifolia* is known as fern-leaved lomatia and crinkle bush. It is native to NSW and Queensland, which at first glance doesn't look too promising for a plant to be at least moderately hardy in the UK, but in New South Wales its distribution does extend inland from the coast to the Great Dividing Range, and Elliot and Jones describe it as "hardy to most frosts" (which of course means Australian frosts). Its leaves are very variable and this led me to wonder if it could be mistaken for the hardier and more commonly grown Tasmanian endemic *L. tinctoria* which also has variable foliage. However the inflorescence structure of the Wakehurst plant looks right for *L. silaifolia* and also

L. tinctoria has flowers less densely crowded along the inflorescence stem. *L. silaifolia* also differs from *L. tinctoria* in that it has a lignotuber, but at the time it didn't occur to me to look for one. With two suppliers listed in the Plant Finder a crinkle bush is on my list for 2015.

The other plant I was really pleased to find was the perennial everlasting daisy *Bracteantha bracteata* 'Dargan Hill Monarch'[3]. Its big blowsy flowers have golden-yellow 'petals' and orange centres (photo page 32). The species, widespread in eastern, southern and western Australia, has both annual and perennial forms.

I am very fond of everlastings, also called strawflowers or paper daisies, common names which encompass a number of different genera. One of these is the annual *Rhodanthe chlorocephala* subsp. *rosea*[4] which I grow every year but I'd given up on getting named cultivars of any of the everlastings as of course cultivars don't come true from seed.

Rupert Harbison kindly sent me some data about the plants at Wakehurst. The original plants were donated by Adelaide Botanic Gardens in 1979. It is propagated by cuttings, taken in August, and is described as 'moderately hardy', something I hadn't really expected as the cultivar was developed from a plant found growing in southern Queensland in 1961[3]. Three suppliers are listed in the Plant Finder so it's another for my 2015 wish list.

The only downside to a thoroughly enjoyable day was the labelling. It was annoying to find some plants lacking a label, and we were sometimes puzzled by the name when we found the label. One was plain wrong. *Grevillea* 'Canberra Gem' is not a cultivar of *G. rosmarinifolia* but a hybrid of that species with *G. juniperina*[5]. It's also a real shame that the shop doesn't stock more of the plants we saw. On the plus side it took us so long to get round the southern hemisphere plants that we never got as far as the *Nothofagus* collection so, if one were needed, I've a good excuse to visit again in 2015.

Notes and references

1 It was only recently that it was realised the plant most commonly grown in Australian gardens is *V. banksii*, described in 2003, and not *V. hederacea*. see Elliot WR and Jones DL, 2010, **Encyclopaedia of Australian Plants suitable for cultivation**, volume 9, pages 440-3

2 The information following is from the Flora of Australia online www.anbg.gov.au/abrs/online and Elliot WR and Jones DL, 1993, volume 6, pages 284-297

3, In Australia this species is now known as *Xerochrysum bracteatum*. An earlier name is *Helichrysum bracteatum* (Australian Cultivar Registration Authority, www.anbg.gov.au/acra/descriptions/acc108.html). An even older name is *Helichrysum monstrosum*. Many forms of the species have been selected for cultivations and many colours are now available but there is doubt whether all of them are true *X. bracteatum*. Elliot WR and Jones DL, 1993, volume 9, pages 501-2. 284-297

4. In the UK seeds sold under the names *Helipterum* and *Accroclinium* appear to be selections of *R. chlorocephala* but I do not know if they are the true species.

5 Australian Cultivar Registration Authority, www.anbg.gov.au/acra/descriptions/acc092.html.

Wondrous north Wales

Tom Hart Dyke

It was a bleary eyed Tom the plant hunter and his apprentice Will – we left Lullingstone Castle and headed to North Wales at 4am on Saturday 20th September - who arrived bang on 10am at the National Trust property of Plas Newydd on the gulf stream endowed island of Anglesey. Eight APS enthusiasts (photo page 21) roamed the estate with its superb views over the Menai Strait. But the best viewing was by far the substantial, mature, eclectic mix of Australasian delights. And we're talking huge proportions; a mature stand of *Eucalyptus dalrympleana* blew me away. An emotional tree hug (photo page 23) was in order! Substantial specimens of *E. parvula* (small-leaved gum), *E. delegatensis* (gum top stringy bark) topped off with the biggest specimens I've ever seen of *E. cordata* (heart-leaved silver gum) filled me with excitement. All of these tree-mendous giants coupled with antipodean understory shrubs from various genera including *Hoheria*, *Hakea* and *Leptospermum* made for a brilliant Aussie woodland effect. The neighbouring run of the mill *Rhododendron* and *Hydrangea* plantings that surrounded the environs of the main house made a distinctly boring contrast!!

Next up on our north Wales tour, kindly organised by Robbie our chairman, was Crûg Farm Plants. Crûg, owned and run by Bleddyn & Sue Wynn-Jones is the consummate example of a modern day plant hunters paradise. In short, Crûg is a botanical mecca for plant nuts like me. Bleddyn & Sue very kindly guided us around and it was such a buzz to see the biodiverse array of plants that have been collected by our gallivanting hosts! Central America, Taiwan, China and Vietnam were well represented. A few Southern Hemisphere delights such as *Drimys*, *Olearia* and *Pachystegia* teased us but to be honest the biggest buzz of all for me was meeting these intrepid explorers, whose travels prove just how many garden worthy plants are still to be discovered and that plant hunting continues to this day!

Last stop was to Robbie and Ben's delightful home in the foothills of Snowdonia for a much deserved tea break. Both of them enthusiastically entranced us with their garden which was crammed to the botanical rafters with southern hemisphere gems. My highlight was observing the most lusciously green and vigorous *Wollemia nobilis* (wollemi pine) I'd ever seen. How much more chlorophyll can I take! What an eye opening whistle-stop tour of North Wales! Thank you Mr Chairman!

Note:
Plas Newydd:
www.nationaltrust.org.uk/plas-newydd
Crug Farm Plants:
www.crug-farm.co.uk/

The Australasian Plant Society

Minutes of the Annual General Meeting 2014
Held at the Held at the Royal Botanic Gardens Edinburgh
on 7th June

Members Present

Tom Hart Dyke: President
Jeremy Spon: Treasurer/Membership Secretary
Judy Clark: Newsletter Editor
Ben Ram: Webmaster
Robbie Blackhall-Miles
John Purse

Guests

Hilary Spon (who took the minutes, for which many thanks.)

1. Apologies for absence.

Apologies had been received from Keith Larkin. Amanda Kershaw, Dennis Blundell, Tim Darrington, David Ware, Alexandra Boyle and Tony Entwistle.

Keith having expressed the wish to stand down as Chairman, and Robbie having offered to take over, and it being necessary for someone to chair the meeting, it was agreed to bring forward the election of the new Chairman to this point. Robbie was elected unanimously. He asked it be formally recorded how much all Keith's hard work over the last few years was appreciated. The Society owed a great deal to Keith for taking on the role of Chairman and investing much time and thought into how the Society could be sustained and developed. These sentiments were endorsed by all present.

Amanda had asked to stand down as Meetings Organiser due to family commitments; Robbie said he would contact her to discuss whether she wished to resume the job at some time in the future.

2. Minutes of the previous meeting.

These were approved without amendment.

3. Matters arising.

Ben pointed out that the processing of queries sent via the website needed to be addressed. Some coming via the old website had been dealt with by Keith, and some by Judy, but it was necessary to decide a procedure for dealing with those addressed to the new email address, enquiries@anzplantsoc.org.uk. Ben was happy to distribute these according

to their content, and as they might need to be dealt with by various members of the committee. It was agreed that this was the best arrangement.

The question of who should be making arrangements for our various meetings was discussed. It was agreed that there did not need to be a single person responsible for all these, but that the individual who took on responsibility for a specific meeting should undertake all the admin relating to it. Robbie said that as Chairman he saw it as his responsibility to organise the AGM.

As far as other administration/secretarial tasks were concerned, Jeremy said that the only time he had had to write letters was to thank hosts of our meetings; the person organising a meeting could in future be left to do this. It was agreed that committee positions and responsibilities had become rather blurred over time, and these would need to be reviewed before the next AGM.

4. Treasurer's report.

Jeremy reported that the financial situation was still healthy, as shown by the accounts distributed with the May issue of Pentachondra. Our reserves versus normal annual expenditure were more than adequate, and we were not spending all our income so the level of subscriptions was satisfactory at present.

Robbie asked about the cost of the seedlist. Jeremy said that income currently just exceeded expenditure, but that he was unclear what Richard's plans were regarding future seed purchases. At present typical spending in a year was around £200, and this was sustainable, but it would be helpful if Richard could consult with him before increasing spending. There was potentially a problem with low turnover of seed due to the small number of members requesting seed, which could result in some seed that was bought being wasted.

Discussions had been ongoing with Jeff Irons' son, Ben, regarding Jeff's book. Ben was keen to reduce the number of copies he was holding, and it was agreed that the Society would buy 20 copies from him, to be sold to members or to be otherwise used to promote the Society. Judy agreed to look after them, and Jeremy would contact Ben to make the necessary arrangements.

Postage charges are steadily creeping up, and as the main expenditure of the Society is on Pentachondra, this will eventually mean that subscriptions will have to rise. It was felt that an increase to £15 would not discourage members from renewing; Jeremy pointed out that the main problem would be getting them to change their standing orders.

Membership had crept back up to 100, and the first new member had joined through the website. Robbie said that he would give some thought to how we can increase the membership, and what rate of growth we should be happy with. It was felt that an increase to 200 should be quite possible to deal with.

5. Newsletter Editor's report.

Judy pointed out that if Pentachondra goes over 40 pages, postage costs will rise dramatically. Pictures had been printed on slightly heavier paper in the last issue, at an extra cost of 1p per copy, which everyone felt was money well spent. On the question of content, she was still receiving a fair number of contributions, although more would always be welcome; she did wonder whether sometimes it was a bit specialist for some members. On the question of copyright, it was agreed that a straightforward mention in each issue that copyright remained with each author was adequate. Ben pointed out that content on the website could not be copied using cut and paste as this feature had been disabled. Judy said that she was happy to continue as editor for the time being, but that consideration did need to be given to planning for someone to succeed her eventually. Everyone agreed that Judy was doing an excellent job and were happy for her to continue in post for as long as she felt able.

6. Seed-list Manager's report.

No report had been received from Richard, but Robbie said he would make contact with him, and discuss various issues regarding the seedlist. There were concerns about the age and viability of some seed, and whether certain items were practical to grow in Europe. The question of timing of the list was raised, and it was agreed this would need to be looked at again, so that it best served the interests of the members.

7. Webmaster's report.

Ben said that the website was progressing well, but asked for more content to publish, including photos, and ideas for other types of information to include. Among things suggested were publicity for nurseries (perhaps in return for them joining the APS), members advertising plants to swap, and links to non-APS events that might be of interest to members.

8. Social media.

Robbie reported that the APS Twitter account now had more than 50 followers; we need to try and convert some of these followers into members. Facebook could also be valuable as tool for promotion of the Society. It might be useful to have a Facebook Group as a forum for members, or this could be run on the members' area of the website; Ben would investigate which approach would be easiest.

9. Election of officers.

All the members of the Committee were willing to continue in their present roles. The Chairman proposed that all these officers be re-elected en bloc and the meeting approved this unanimously.

10. Next Year's AGM and other meetings.

It was suggested that it would be better to hold the AGM as a separate event from any garden visits, perhaps in the winter, and Tom offered to host this in the house at Lullingstone. It was agreed that this should happen in November this year, on a Saturday to be agreed with Tom. The question of whether we had a formal constitution was raised; no-one seemed to know, but Jeremy said he would look through the paperwork he had inherited from previous Treasurers.

It was also agreed that visits to private gardens were especially popular with members, and that we should try and arrange more of these. One or two suggestions were made and these will be investigated. Members could advertise on the members only area of the website if they were willing to host informal visits; John Purse said that would probably be more appropriate than a formal group visit in cases such as his eucalyptus plantation.

11. Any other business.

Robbie was in the process of trying to arrange the rescue of some of Jeff Irons plants from his garden, the new owners not being gardeners.

It having been agreed that the name of the Society should not change at present, Tom said he would proceed with the process of affiliating to the RHS. Robbie commented that although it was not felt necessary at present to change either the Society's name, or that of the Newsletter, it might be worth including this as a main agenda item for the next AGM, and in the meantime, members should be given an explanation of the significance of Pentachondra.

The Chairman then thanked everyone for attending and supporting the Society, and the meeting was closed.

Illustration acknowledgements
Particular thanks to David Lyttle Ph.D of Denedin, New Zealand, for providing the terrific photo of *Pentachondra pumila* (back cover)
Robbie Blackhall-Miles: front cover
Alexandra Boyle: page 31 (*Freycinetia banksii*)
Judy Clark: page 32
commons.wikimedia.org:, Casiliber, page 9, bottom
commons.wikimedia.org: Gnangarra, page 10, top
Gary Dunlop: page 10, bottom and page 19, top
Gary and Maria Firth: page 19, bottom
Margaret Somerville: page 9, top
Hilary Spon: page 20
Jeremy Spon: page 21, top
Ben Ram: page 21, bottom, and page 22
Maurits de Vries: page 31 (*(Acacia pataczekii*)

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Carpet heath, *Pentachondra pumila*, New Zealand