AUSTRALASIAN PLANT SOCIETY
NEWSLETTER

PENTACHONDRA

ISSUE 51 DECEMBER 2013



Jeff Irons 1930 -2013

AUSTRALASIAN PLANT SOCIETY

Newsletter Number 51

DECEMBER 2013

CONTENTS

Vale: Jeff Irons 1930-2013 1
Richea scoparia, Jeff Irons 11
Olearia ramulosa, Jeff Irons 10
APS News 13
From the President, Tom Hart Dyke 16
National Meeting 2013, National Botanic Garden of Wales, Ben Ram 18
A fossil garden in Wales, Robbie Blackhall-Miles 23
Grevillea robusta as a British tree, Owen Johnson 25
Leptospermum namadgiensis in my garden, Maurits de Vries 26
Sophora tetraptera and related species, Gary Dunlop 27
Growing points: Atherosperma moschata at Knoll, Phosphorus sensitivity, A cycad and a puya, Blandfordia punicea, Western Australian sundews, How hardy are correas? 33
Bits and pieces: Name changes AGMs for Australasian plants, On the web, French nursery 35
Minutes of the APS Annual General Meeting 2013 37

© Australasian Plant Society, authors and illustrators of individual articles.
No part of this publication may be reproduced in any form or by any means without prior permission.

CONTACTS

President	Tom Hart Dyke Lullingstone Castle Eynsford Kent DA4 0JA
Chairman & Webmaster	Keith Larkin Chadshunt House 5 Lillington Road Leamington Spa Warks CV32 5YS Tel : 01926 422596 webmaster@anzplantsoc.org.uk
Treasurer and Membership Secretary	Jeremy Spon 1 Iffin Cottages Iffin Lane Canterbury Kent CT4 7BE Tel : 01227 780038 membership@anzplantsoc.org.uk
Meetings Secretary	Amanda Kershaw 85a Penkett Rd Wallasey Merseyside CH45 7QQ Tel : 0151 6397611 meetings@anzplantsoc.org.uk
Newsletter Editor and Enquiries	Judy Clark 36 Collier Road Hastings East Sussex TN34 3JR Tel : 01424 720369 editor@anzplantsoc.org.uk enquiries@anzplantsoc.org.uk
Seed Manager	Richard Christmas Osborne House Wrexham Road Pen-y-ffordd Chester CH4 0HT seeds@anzplantsoc.org.uk



Jeff and Betty Irons with an exhibit of Australian plants

VALE: JEFF IRONS 1930-2013

Jeff Irons, the prime impetus for the formation of the APS and plantsman extraordinaire when it came to Australasian plants, died earlier this year. Jeff was known as a remarkable plantsman not only in the UK but also in Australia. Rodger Elliot, co-author of the nine volume Encyclopaedia of Australian Plants, described Jeff as "*a very experienced plantsman and* [he] *will be missed greatly. He was a great source of knowledge on a range of matters when we were compiling the Encyc of Aus Plants*" while native plant expert Neil Marriot wrote "*Jeff was a great man who regularly supplied me with info on how various plants grew in the UK. We will miss him!*"

Jeff's immense knowledge of Australasian plants is attested in the following recollections of APS members, all of whom lament our loss of his expertise. However we still have his book on growing Australian plants in Europe (co-authored with Thomas Ross, and now, sadly, apparently out of print); his comprehensive notes on seed germination and vegetative propagation of Australasian plants*; and his many journal articles including what he wrote for Pentachondra. Some of his very early Pentachondra writings are reprinted in this issue for the benefit of more recent APS members; I trust that longstanding members will not mind, and perhaps even be pleased to be reminded of them. (Thanks to Pat Anderson for providing pre-1999 newsletters.)

Jeff took many photographs of plants he grew and plants he saw on his travels. When I became editor of Pentachondra he sent me several CDs of meticulously labelled pictures to serve as a library and I regularly turn to them for illustrations. However Jeff himself seems to have been somewhat camera shy as it proved exceedingly difficult to find photos of the man himself. Rodger Elliot provided the one on the back cover, a picture that Jeff had sent him. It shows Jeff and his wife Betty on the verandah of a display of Australian flora that Jeff had co-ordinated for a show in London. Rodger was unsure of the date – early 2000s probably – and so far no one who has seen the picture has been able to identify the show. The photo on the front cover, taken by Gary Dunlop, shows Jeff with *Cordyline indivisa* in Northern Ireland in 2005.

* For a copy of either please email or write to the editor.

A biography and tribute

Jeff was the only son of a grocer and grew up in Cambridgeshire. In his younger days he was a keen athlete, taking part in sports as diverse as cross-country running, cycling, canoeing and sailing. He gained his Queen`s Scout award and when on National Service in the RAF he was in their gymnastics team.

His first job was in East Anglia with a food-canning company as an industrial chemist. He then, after studying at Woolwich polytechnic, gained an external London degree in chemistry.

In 1950 he went to Australia, first working for Cadburys in Hobart, Tasmania, and later for a sugar company in Townsville, Queensland. He returned to England in 1955 on the death of his father and then met Betty, a teacher. They were married in 1956 and had two sons.

Jeff initially worked for ICI, but after living in Bolton and Derbyshire he settled in Heswall and took up a post in the NHS, employed on data-collection and contracts. He retired in 1963 and in his retirement visited Australia many times, as well as Papua New Guinea and New Zealand. He also visited eastern Europe and the Middle East: Iran, Yemen, Syria, Jordan.

Jeff`s knowledge of Australian plants was truly encyclopaedic. He contributed to many journals including Australian Plants, the Plantsman, and of course our own Pentachondra. He lectured at Ness Botanic Gardens, where he was also active in the Wirral branch of the Alpine Garden Society, and at the RHS "Down under" day in London in 2005. He co-authored the book "Australian Plants - A Guide to their Cultivation in Europe" (Ross and Irons, 1997).

His quite modest garden in Heswall was stocked full of Australian plants. A list he gave me in 1987 showed over 120 species and varieties. He was generous in giving members his propagations, and seemed an expert in raising difficult seeds such as *Richea* species.

In 1988 he decided to go ahead with his idea of forming a society in the UK and he obtained from the six state divisions of the Australian Native Plants Society (Australia) (ANPSA, then SGAP, the Society for Growing Australian Plants) the names and addresses of the then UK residents who were members. We were invited to a meeting in the autumn of 1988 at Kew (with the help of Brian Halliwell, then a Curator there). Six of us met and decided to go ahead, with Jeff as secretary and myself as treasurer. Initially we called ourselves SGAP (Europe) but we then told by SGAP that this was not allowed under their constitution. so we became the Australasian Plant Society.

Jeff worked very hard during those early years. He edited and sent out newsletters until Sue Hyams took over as Pentachondra editor, and he also provided our seed list for many years. Jeff was the very linch-pin of our Society.

Jeff`s illness (prostate cancer) was lingering (some five years with vicissitudes) and painful. He bore his pain with his typical independent stoicism. Tragedy struck in late 2011 when Betty had a massive stroke, and she has ever since been in a nursing home in a

semiconscious state. I visited Jeff shortly before his death. He was still fully mentally alert and told me how he missed visiting Betty, so I was very pleased to learn that the nursing home staff had managed to take her (only a short distance away) to see Jeff before the end.

Tony Entwistle

From an APS founder member

I met Jeff Irons perhaps 25 years ago when I was employed at Kew. Why we met I remember not but perhaps it was to discuss southern hemisphere plants for I was to discover that both of us had lived in Tasmania. We were to keep communicating by mail. For at least two decades we corresponded and it may be that the letter I had from him earlier this year was one of the last he wrote.

With Jeff I was one of the founder members of the APS. For a short while I was its President but this was of short duration for I was less than efficient. When the newsletter came into existence both he and I were regular writers. He kept on with his writing until the time he died whereas I have declined because of old age.

I don't drive and Jeff seemed reluctant so we were rarely together. I did a lecture on the western side of the Pennines, perhaps to the APS, and there was uncertainty as to whether or not I could catch the last train. I was invited to stay with him overnight which gave me a chance to see his garden of which I was very envious.

You ask if anyone had plants from him: I did but just a few. In my Halifax garden the first cold winter killed off all of them. I never knew of the paid work he did but I doubt it was botany. Nonetheless he was very knowledgeable about the botany of southern hemisphere plants.

Brian Halliwell

What a store of knowledge has gone

I first met Jeff Irons around the late 1980s. I think it was at Kew Gardens, at the first APS AGM I went to. I remember that he was welcoming but quite businesslike. But that was Jeff's way.

He always tried to be helpful when I contacted him, even when it didn't concern Australian plants, and wasn't afraid to say that he didn't know the answer rather than waffle. And he was quite happy to admit when he was wrong.

Several years ago I had quite a prolonged email exchange with him about *Sophora* 'Sun King' (also known as 'Hilsop'). Both of us discovered quite a lot that we didn't know, and I believe that was one of the great things about communicating with Jeff: you were bound to increase your knowledge.

I believe that many members received plants from Jeff, but the only plant I got from him wasn't Australasian, it was *Scabiosa*

farinosa, a Tunisian plant. I did send him a couple of seedling plants, *Orthrosanthus laxus* and *O. multiflorus* (morning iris). Some time later I received a short letter noting that: "*They are now flowering size plants displaying buds. I shan't be out at dawn, but after breakfast I shall be out to ascertain whether any blooms are open.*" As ever with Jeff, there was some extra information. He added a note: Orthros = dawn and anthos = flowers, a reference to the fact that each bloom lasts only a day.

Life has some strange coincidences. I was looking through my emails with Jeff, and found an email he had written to Sue Hyams (copying me), which was about verticordias, as he knew I had a particular interest in them. In a similar vein to his letter to me on orthrosanthus, he pointed out that "verticordia" comes from the latin for "turner of hearts". He noted that "*The keen plant lover finds that information about them turns up in all kinds of places. This was brought home to a member when visiting an exhibition of Rossetti's paintings and drawings. One portrait was captioned Venus Verticordia. The explanatory notes stated that Verticordia is an old name for Venus.*". It so happens that I was in Bournemouth this weekend (I am writing this in mid-October), and passed the Russell-Cotes Museum. That museum happens to hold the "Venus Vertcordia" painting that Jeff referred to. I will miss Jeff.

Jeff Layman

He will be badly missed

The first contact I had with Jeff was about 20 years ago, when I received a letter from him, asking me to '*please state whether the Anopterus glandulosus that I had was raised from seed or by vegetative propagation*'. It was an unusual but memorable enquiry. I had rooted cuttings of the shrub, but it transpired that Jeff had failed to raise it from seed and was trying to establish whether the problem was short-term viability of the seed.

Sporadic correspondence followed but this was soon was replaced by phone calls, mostly initiated by me, as it did not take me long to realise just how knowledgeable Jeff was about Australasian plants, and much else as well. He was usually able to answer any query straight away; only rarely did he have to consult his library about something and come back soon after with the information. He had a phenomenal memory and probably a photographic one.

Email added another means of prompt communication, and enabled me to send Jeff photographs for identification of several plants which had long since lost their labels. He was also an excellent proof reader, which I discovered when I first sent him a draft of an article. Proof reading is not one of my accomplishments, particularly on screen.

He was invited by the RHS to be one of the speakers at a seminar on Australian plants, but not being

well known was only offered the standard minimum rate. The RHS tend to pay speakers on how well known they are rather than the knowledge to can impart. I heard from one attendee that Jeff was the only speaker who knew his subject well; most others were, to say the least, superficial, despite being paid more handsomely.

After the Liverpool Ferry changed its berth to Birkenhead, I was able to visit Jeff briefly on several occasions when en route to catch the ferry home, as he only lived a few miles from the M53. In 2005 I encouraged him to fly over to Northern Ireland for the day and took him on a whirlwind tour of Mount Stewart, Castlewellan Arboretum, Seaford Nursery, en route north again to Rowallane and finally for a quick look around my garden before delivering him back to the airport to fly home. I doubt he had ever been whisked around so many gardens in such a short time. He intended to come back for a few days with his wife Betty, and spend a day in each of the major gardens, but it was not to be as Betty did not recover properly from a fall and was unable to walk any distance.

Within a couple of years ill health also restricted Jeff from travelling far, and more significantly looking after his plants and garden as he would have wished. Many of the choice plants that he grew he passed on to Keith Lever and others for safe keeping.

The analgesic he was obliged to take was only effective in a dose that left him drowsy for long periods but he remained mentally alert and active. He was still in communication by email with many people including botanists in Australia and New Zealand, and keeping abreast of current thinking, until his final few days in hospital.

Jeff will be badly missed by everyone who knew him, and especially by those of us in the Australasian Plant Society who for so long have relied on him for his pivotal role and authoritative knowledge.

Gary Dunlop

Recollections of Jeff Irons

I joined the APS in the late 1990s, and before I had my arm twisted to help run the Society, my main contact with it, apart from Pentachondra, was through the seedlist, then run by Jeff. In May 1998 I sent off my first seed order, and this was fulfilled very promptly, so I wrote a note of thanks to Jeff. He wrote back, saying: "*Your recent letter is the first 'thank you' one about the APS seedlist I have ever received. It is appreciated.*" (I don't know if he has ever received a 'thank-you' letter, but I do hope our current seedlist manager, Richard Christmas, realises just how grateful we all are for all his work!)

Jeff went on to make some comments on the seeds I had requested, and to offer me seedlings of two other plants he

recommended I should also try and grow. This was typical of Jeff; he was never content just to send back your seeds, but took the trouble to provide further information about provenance, growing conditions and the like. He used to return your order form with the seeds, and there would invariably be comments added. One year I explained that I had ordered less than my full allocation, because I had already sown so much other seed. Jeff's comment was '*makes me pleased too*'; he used to worry about all the seedlings members would raise, and not know what to do with! (Although in my case I think he overestimated my skill; his meticulous nature, and extensive research, made him a much better grower of Australasian plants than I will ever be.)

When Jeff's book on growing Australian plants (written with Thomas Ross) was published, I ordered a copy from him, and it remains one of my most referred-to gardening books. I recall Tim Longville criticising it for failing fully to convey the fascinating strangeness of the plants it described, but again that was typical of Jeff. Gushing enthusiasm was certainly not his style; against one plant of which seed had run out he wrote on my order form '*no great loss - not very showy*'. He had a scientist's focus on understanding and dispassionately assessing the plants he grew, and if he thought they were not worth growing, he would say so.

Eventually I started attending APS events, and met Jeff. I found that he was as direct in person as he was in his written comments. At time he could seem abrupt, and occasionally I thought the phrase 'does not suffer fools gladly' might be appropriate. But that would be to ignore the unfailingly conscientious response he made to all requests for information or advice. Even in the last months of his life, when he was by all accounts in much pain, he would always try and answer queries if he possibly could.

To my regret, I never managed to see Jeff's garden; by the time of the AGM held at Cheshire Zoo both Jeff and his wife were too ill to make a visit feasible. But through plants grown from seed from those early seed orders, recommended by Jeff, and which survive in my garden today, I have some faint hint of what his garden must have been like. Certainly, if I take proper note of all the advice he gave over the years, I can have no excuse for failing to succeed with Australasian plants.

Jeremy Spon

An encouraging mentor

I joined the APS in 1999 but my first contact with Jeff was the previous year. I had not long been gardening and I was still at the stage where I was planting anything that took my fancy but not knowing much about what I was doing. Thus I had an ailing *Melaleuca decussata* t in my garden and two *Anigozanthus*

flavidus, grown from seed sent by my mother, which were outgrowing their pots. I do not remember how I got Jeff's address but I do remember that it was with some trepidation I wrote to ask him about what I should do next with these two Australians.

He replied promptly, as he always did. He told me he had not grown either species but given where they are native (South Australia and Western Australia respectively) he thought either unlikely to prosper outside. You want your plants to thrive, not just survive, he noted. The melaleuca promptly died the following winter but my kangaroo paws certainly flourished in my newly acquired greenhouse. Indeed, it was not long before they were threatening to take it over so I figured that I had nothing to lose if I experimented with planting some out in the warmest part of my garden. They have done well there ever since, and while I think Jeff was somewhat surprised his advice had been typically meticulous; he had never said they wouldn't thrive outside, only that he would advise against planting them out.

This letter from Jeff was instrumental in my decision to join the APS. I did so not just because his reply was so encouraging but also because it was not at all condescending despite the fact that I was very obviously a novice.

I particularly valued Jeff's help when it came to plant names and identification. I mentioned to him that I had grown (from RHS seed) *Leptospermum grandiflorum*. Check it he advised, as you may find that your plant is *L. grandifolium* and sure enough that is what it proved to be. Jeff had explained that I should look to see if the sepals persisted after flowering, as this is characteristic of *L. grandifolium*. But his assistance did not stop there. He photocopied botanical descriptions of the two species and sent them to me, with a piece of *L. grandifolium* sellotaped to the page. This episode taught me much more than how to ID a particular plant; until then I had assumed that seed would be what it said on the packet but now I check the identity of everything that comes up.

Over the years Jeff not only answered my questions but also periodically suggested Australian plants that should do well in my coastal garden. He often sent me photocopied articles that he thought would be of interest, or might contain information that I could put in Pentachondra. He was also generous with instructions for some difficult seeds, though I never did manage to germinate *Richea scoparia*. If he was disappointed he never said so though I think richeas were among his favourite plants but

Despite his illness Jeff continued to write for Pentachondra and to pass on items of interest and photos of plants that he had grown. He continued to take an interest in his plants even if he could not do much. In spring 2011,

following a devastating cold spell the previous winter, he wrote: "*I have a similar ghastly tale to Tony. However the only thing that bothers me happened in last summer's drought. I could not get down the garden to water Richea pandanifolia and all the young leaves died. I hope the growing shoot has not been killed. I'm to ill to bother about the winter's damage and too old to start again. I thought that Phaerosphaera fitzgeraldii* [now Microstrobus fitzgeraldii] *was dead but noticed today that there are green tips to the branches, so it may be alright."* In August he reported that bottlebrushes that had been cut to the ground were all shooting vigorously, and that *Grevillea bipinnatifida*, kept over winter in his unheated greenhouse, was in bud despite having suffered some cold damage. Later that year he sent me a photo of it in flower (see page 9).

I remember people through plants. Whenever I see *Wahlenbergia gloriosa* or *Geranium rodneyanum* in flower in my garden I will be reminded of Jeff's encouraging and painstaking guidance.

Judy Clark

A kind and generous person

In 2009 I bought the book "Australian plants: A guide to their cultivation in Europe" by Jeff Irons and Thomas Ross. After reading it I wrote to the publisher in Germany for the email address of Jeff Irons. Jeff replied the same afternoon and offered me lots of cuttings and seeds. Since that time we had contact every week, sometimes every day.

He helped me always with a lot of things and I believe that Jeff really enjoyed helping me and teaching me things. We had sometimes big discussions about Australian plants. I was always the one that asked him thousands and thousands of questions and Jeff tried to answer all my questions as well as he could. I was aware of his health problems but I always felt that Jeff didn't want to talk about them too much. So we kept our discussions mostly about plants.

I can recall that my girlfriend called me at work and asked me If I had ordered a blender in England. I replied no, why? Jeff had sent me unannounced a *Callitris oblonga* and had packaged it in a blender cardboard box he had at his home. I also received many times unannounced seeds and cuttings. Jeff helped me a lot, with so many rare plants. I couldn't imagine a better help than Jeff for a beginning Australian plant enthusiast. Sometimes I had a burning question about some Australian plant and I was thinking. Shall I write to Jeff or not??? I have already written to him five other times this week?? Well… I would write and mostly I had the same day a very good answer to my burning question.

A friend of mine Brent Hine had a few years ago plans to go plant hunting in Tasmania. Brent is



Grevillea bipinnatifida
Jeff Irons' greenouse
Seed collected from a garden plant near Stawell, Victoria





Above**:** ***Richea scoparia***
Right**:** ***Olearia ramulosa***



World Garden at Lullingstone: Tasmanian eucalypts with volunteer Jo Armstrong



***Anigozanthus* flower, National Botanic Garden of Wales**

curator of the EH Lohbrunner Alpine Garden in Vancouver, Canada. I told Jeff about it and Jeff had some good tips for him. I loved this one: "*In Tasmania it is recommended that you go walking with at least a group of 3 people. Even on Mount Wellington you can be 6ft (2m) from a path and not know it is there. If Brent Hine is alone a better walk for him would be from the top of Mount Wellington down to Lenah Valley, then get the bus to Hobart. He can drive to the top of Mount Wellington and Ben Lomond and will find many interesting plants next to the car park. The same is true for the car park at Cradle Mountain. He will see Diselma along the board walk at Cradle Visitor Centre."*

I`m very glad that I have kept all his emails since the beginning. So I have still access to a part of his incredible knowledge. I think that no one has such a great knowledge about growing cold tolerant Australian plants in Europe as Jeff. I really miss our discussions we had every time by email and I never will forget this very generous and kind person.

Maurits de Vries

RICHEA SCOPARIA

Jeff Irons

From APS Newsletter number 5, November 1990.

With the increasing emphasis put on the architectural quality of plants as a means of obtaining year round interest in small gardens it is surprising that southern heath, *Richea scoparia*, is not seen more often. Since it is named after the Frenchman Riche the genus name is pronounced with a soft 'sh' and not as might have been expected with the hard 'ch' of 'rich'. The richeas come from wet well drained places in areas of high rainfall. In western and northern Britain they tolerate drier conditions and grow well in 25in (635mm) rainfall areas. In southern England they are more demanding and at Kew were always found to be quite difficult.

Their hard leaves curve out and then down and radiate from the stems. They create a very dramatic architectural effect. The best known is *Richea scoparia* and in his book "The Peat Garden and its Plants" (Dent 1974) Alfred Evans recorded that at the RBG Edinburgh plants had lasted more than forty years. They have also self seeded at Edinburgh.

Curtis[1] describes *Richea scoparia* as being the alpine equivalent of *R. dracophylla*. It makes an erect much branched shrub which forms dense rounded bushes 15in to 39in high (40-100cm). In sheltered spots old plants can grow up to 10ft (3m) high. The leaves are rigid and imbricate, linear lanceolate, tapering to a sharp point and sheathed at the base. As with many other epacrids[2] they stay attached to the branches after they have died. This is a distinguishing feature between *R. scoparia* and *R. gunnii*. The dead leaves of the latter fall off. The

flowers are in an erect spike-like panicle some 2-5in long (4-12cm). The flower colour can be white, red or orange. Interestingly nearly all the plants in the British Isles have white flowers (see photo page 9). This is because they were propagated vegetatively from Edinburgh stock. In recent years Highfield Nursery (Belper, Derbyshire) has offered seed grown plants[3] and my own stock is seed raised.

Propagation is vegetatively or from fresh seed which has not dried out. If it can be obtained the latter should be surface sown on an open lime free compost. It will germinate once winter is over. The young seedlings have very fine roots so should be handled with great care. As with mature plants they need a compost which is well drained but permanently moist. Seedlings may be planted out in their third year. Like other Australian plants their survival chances are increased if this is delayed till April or May.

Editor's notes:

1. WM Curtis, Students' Flora of Tasmania (5 vols, 1956-94)

2. Family Epacridaceae, now subsumed into Ericaceae.

3. A search of the 2013 Plant Finder found no nurseries offering richeas.

Do you have ...

Maurits de Vries is looking for cuttings of *Ozothamnus alpinu*s. If you can help please contact him at maurits187@gmail.com.

OLEARIA RAMULOSA

Jeff Irons

From APS Newsletter number 7, November 1991.

Olearia ramulosa (twiggy daisy bush) is a very variable shrub, native to the southeastern Australian states of South Australia, Victoria, Tasmania and New South Wales. In size it varies from a small cushion on the coast to a 3m (10ft) high open shrub in forests. The form common in British horticulture is sold as *Olearia ramulosa* 'Blue Stars'. It was introduced by Graham Hutchins of County Park Nursery[1]. He obtained it from the Tasmanian nurserywoman Margaret Kinsey. Unfortunately that is as far as the trail goes, for Margaret cannot recall from where, or when, she got it.

Olearia ramulosa 'Blue Stars' is a fast growing shrub, erect, with many slender branches. They and the undersurfaces of the leaves are covered with a white indumentum of woolly hairs. The leaves, 2-10mm long, are crowded along the stems and are of varying shapes. It can be restrained to any desired size by pruning in spring.

The main flowering period is August to November , and it is smothered in flowers for the whole of that time. The flowers are small, and are borne at the ends of small branchlets, covering the bush when it flowers, often appearing to form a long spike. The actual hue

of the blue colour varies greatly with the angle and power of the sun, plus the clarity of the atmosphere, but it is always attractive (see photo page 9). After a mild winter there is a subsidiary flowering for about three weeks during May and June. This has no effect at all on the later flowering.

Olearia ramulosa 'Blue Stars' is an excellent plant for giving blue colour in the late summer and autumn. It will perform in soils where *Caryopteris* x *clandonensis* 'Arthur Simmonds' does not. Although it will grow in wet soil this reduces its hardiness. The plant is much hardier in well-drained soil. It is quick growing and will reach 1.5 x 1.5m (4.5 x 4.5ft) in three years. Propagation is from spring or early summer cuttings. Fresh seed or seed stored over winter at 4ºC will give a low germination.

In cold areas it is recommended that spring cuttings be grown in pots for one year, overwintered under cover (a cold frame will do), and planted out in the following spring. Large old plants can be subject to storm damage, with whole branches breaking off at the base. My own stock plant was cut right back to its base by the 1990-91 winter, but produced new growth for the 1991 summer.

In the wild the forms with white ray florets are more common than those with blue florets. The insignificant disc florets are always yellow. A point of passing interest is that blooms of *Olearia ramulosa* 'Blue Stars' were included in the bouquet given to the wife of the Australian High Commissioner when she opened the Australian Bicentenary Exhibition in the National Museum in Liverpool.

Editor's note:

1. It is still available from County Park Nursery.

Keep up to date

If you want to be kept up to date with events by email **please make sure we have your current email address.** Members who do not have access to email and would like information about meetings in advance of the next issue of Pentachondra should contact the Meetings Secretary.

APS NEWS

New Chairman

Looking back it must be about eight years ago that I took on the role of Chairman, and over that time I have been grateful for the good team we have had to carry out the tasks to ensure the smooth running of the society. There have been gradual changes in the people involved, and it has been good that we have had volunteers to take on the roles as previous incumbents have relinquished their position for various reasons.

Steady change of those running a society is often good for it, bringing in new ideas and fresh impetus. The others in the team have now been in place and settled

for a while so it seems a good time for us to find a new Chairman. Over the years we have done the things which I thought of value to the society and I now believe the society would benefit from someone with a fresh approach. So we are looking for someone else to take on this role, or maybe one of the other positions and an existing officer take on Chairmanship with maybe a realignment of existing roles which we have done previously. Of course all roles are open to everyone in the society to stand for at our AGM.

You might be wondering what a chairman does. As ever it depends on the person in the role and the rest of the team but my view is that they should be like a conductor in an orchestra, giving and receiving ideas, pulling everything together, making sure that nothing gets overlooked, spearheading resolution of issues which arise, and making sure as best possible the future of the society.

If you would like to find out more then please get in touch. We are an informal friendly group looking to develop the society for the future.

Meetings 2014

The 2014 AGM will be held at the Royal Botanic Gardens Edinburgh (www.rbge.org.uk/) on **Saturday 7 June**. Edinburgh has plenty to delight the Australasian plant enthusiast, especially in the famous Rock Garden and the glasshouses. The RBGE also holds the national collection of Vireya rhododendrons of which there are a few Australian representatives. If your interest extends to other southern hemisphere species you might well want to make a weekend of it as there is also much to see by way of plants from southern Africa and South America. Or you could nip down the road to Glasgow Botanic Garden to see the national collection of tree ferns.

Another meeting planned is to Wakehurst Place in West Sussex in July (www.kew.org/visit-wakehurst/garden-attractions-A-Z/). The southern hemisphere garden there has undergone substantial enlargement in recent years, while the plantings are being realigned to show their distinct geographic origins of New Zealand, Tasmania, Australia, South America and South Africa. Wakehurst Place also holds the national collection of southern beeches, *Nothofagus* species.

Full details for both meetings will appear in the May 2014 issue of Pentachondra.

Ideas wanted!

The society would love to offer more meetings where members can get together but we're a bit lacking in local knowledge. Do you know a place that other APS members would enjoy visiting? Your own garden? Or a garden nearby that's open to the public? Or a local nursery that specialises in southern hemisphere plants? If so please do contact the editor.

Twittering

The APS has joined Twitter! @GondwanaPlants went live on September 2nd which was, rather appropriately, Wattle Day in Australia. Our Twitter account was set up by Robbie Blackhall-Miles (thanks Robbie) in order to raise awareness of the APS and of growing Australasian plants and their allies in the UK and Europe. By mid October we reached 100 followers and currently we have over 130. That's quite a lot of interest in Australasian plants.

If you are already on Twitter then do have a look. If you aren't and want to find out more go to https://twitter.com/search?q=%40GondwanaPlants&src=typd. You might even want to join! I must admit I was a bit skeptical at first but I was pleasantly surprised to find that it doesn't take long to get the hang of twittering. And that it's a relatively easy way to learn new things and connect with other plant people, including other APS members.

There's obviously a limit to what can be communicated when you are limited to 140 characters but links and photos can be attached to tweets and this markedly expands the information that can be conveyed. For example, people post pictures of plants they grow, and link snippets of information to websites. By joining I've found out some fascinating things that I probably would never have otherwise discovered without spending hours on the internet, which I wouldn't want to be doing because I'd rather be gardening!

New members

The APS would like to extend a warm welcome to new members James Benson, Rosemary Dove and John Williams, and to returning member Janet Miller.

2014 Seedlist

The 2014 seedlist will be included with the May 2014 newsletter as usual. If you can't wait till then you can get it by email from the end of March 2014. In the first instance please contact Judy Clark, Pentachondra editor at editor@anzplantsoc.org.uk.

Pentachondra contributions

Many thanks to everyone who contributed to this issue. Any article, short or long, that has at least a passing connection with Australasian plants will be appreciated for the next issue. How about telling other members about your garden, a favourite plant, a garden or nursery that you enjoyed visiting, or a book you can recommend. One way we all learn more is hearing about other members successes and failures and even the newest newcomer can contribute to knowledge of Australasian plants and their cultivation. The deadline for the next issue is **31st March 2014**, but you don't need to wait till then; any time will do. Please don't

hesitate to contact the editor if you have any questions about writing something.

Subscriptions are due

All subscriptions are due on **1st January 2014.** If you **don't** pay by standing order 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 you will not have received a renewal form but please contact Jeremy if any of your details have changed.

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

To facilitate secure payment for overseas members without UK bank accounts we have set up payment via PayPal. Members who paid by this method last year will receive a Paypal payment request from the Treasurer shortly before the end of 2013. The amount requested will be £15; this can be paid for in the local currency via Paypal at the exchange rate applicable at the time. If you would like to start paying by this method then please contact the Treasurer. (Unfortunately we cannot make PayPal available to UK members because it is too expensive.) Overseas members can also send cash through the post but do so at their own risk.

FROM THE PRESIDENT

Tom Hart Dyke

Well, well, well what a whirlwind of weather we've experienced since I last wrote for Pentachondra. From a soaking 2012 summer, resulting in superlative Antipodean growth followed by a relatively mild 2012/13 winter; with **no** Australasian losses, the mercury barely touched -10ºC for the first time in many a season. This time exactly three years ago we were in the freezing throes of losing half the Southern Hemisphere collection with three weeks of no daily rise above freezing! Three years on and our biodiverse antipodean re-growth/ re-planting transformation is complete; the collection has **never** looked so good since starting the World Garden in 2005. It's all very emotional.

One late November morning in 2013 as dawn began to express itself on the bucolic north west Kent countryside I strolled around the North & South Island New Zealand section of the World Garden. It looks sumptuous, and my retinas are particularly drawn to the architectural *Carmichaelia* 'Coral Spears' with its flattened, terete stems doubling up as leaves; glorious spikes of *Aciphylla aurea* ('Golden Spiky Spaniard), with its devilishly syringe-like leaf tips, both acquired from the brilliant Paul Boosey at County Park Nursery, Hornchurch, Essex.

Adding a superlative backdrop to these treasures and still looking good is *Austroderia richardii* (toe toe; synonym *Cortaderia richardii*) that has developed into a substantial evergreen clump. But my favourite has to be a dense intertwined evergreen thicket of *Coprosma rugosa* 'Clearwater Gold' from Trevena Cross Nursery in Cornwall. Its coppery-yellow, smooth whilst sexily arching sprigs are a pure glittering delight. Incidentally all of the above were unscathed at -16ºC in November/ December 2010.

Tasmania meanwhile also reveals some late November delights. *Asterotrichion discolor* (currajong) from the mallow family (multi-stemmed, 15ft (4.6m) tall, re-growth since spring 2011!) is bursting with thousands of powerfully honey scented white blooms. It gives a zestful and positively zinging spring in one's horticultural step! Clumsy bumble bees are **still** drunk on these flowers, and Advent starts tomorrow! My chlorophyll pleasured eyes scan over a hugely eclectic range of juvenile Tasmanian eucalyptus foliage from sea blue-silvery *Eucalyptus urnigera* to deep green, glistening *Eucalyptus subcrenulata*, now reaching for the skies at some 20ft (6m) plus, all re-growth since being levelled in December 2010 (see photo page 10). .

Distracting me further are perfectly symmetrical, undamaged fronds of *Dicksonia antarctica* (soft tree fern) and at its feet a recently planted sprawling specimen of *Microcachrys tetragona* (creeping pine or strawberry pine). This very rare monotypic conifer is restricted to the wilds of Tasmania, and I adore its immature, dinky bright red cones. Wakehurst Place very kindly donated this miniature spectacle to the World Garden, together with a host of other antipodean delights.

Mainland Australia hasn't disappointed either. I stumble upon an extremely floriferous *Grevillea victoriae* (royal grevillea) from the mountains of Victoria. It's the first time I've flowered this spidery stunner and although we incorporated lots of acid soil into the original planting hole, I'm astonished not only at the lack of chlorosis usually induced by our alkaline soil but also just how hardy this species is proving. It's the **only** *Grevillea* that manages to survive outside here! Another point of interest in our now multi-stemmed (nine growing points) *Wollemia nobilis* (wollemi pine) – each stem approaching 5ft (1.5m) tall. It looks stunning. All of this re-growth is since May 2011, after 2010-11 winter levelled our original single stemmed specimen. In this case I'm grateful for that devastating winter!

My exhilarated yet horticulturally exhausted eyes finally come to rest upon one of my favourite eucalypts in our National Collection, *Eucalyptus rubida* (candlebark gum), with its

glistening bright white trunk reflecting sumptuously on this dull overcast autumn day. Summarizing Aussie highlights from a hugely successful 2013 then flash pass me. Did I really coax *Corymbia ficifolia* (red flowering gum) into flower under polytunnel protection?; Did we really paint *Eucalyptus gunnii* with Geckos? And did I really show Prince Charles and Camilla the world's smallest gum tree, *Eucalyptus vernicosa*?

Happy antipodean growing to all APS members in 2014!



NATIONAL MEETING 2013: NATIONAL BOTANIC GARDEN OF WALES

Ben Ram

In the remote Towy valley of Carmarthenshire a winding rivulet of water leads you to a hill made not of green grass, but shining glass. Whose heart is filled, not with the coal mines of yesteryear, but the heavenly plants of a land down under. The National Botanic Garden for Wales is home to many exciting plants, but it is those in the great glasshouse that totally took my breath away. These were the plants that the Australasian Plants Society came to visit during its AGM this June.

On entering the glasshouse, my eyes were immediately drawn through the sea of kangaroo paws (*Anigozanthos*; photos pages 10, 19) to a bright orange dot in the distance. It was an inflorescence of *Banksia prionotes*, the acorn banksia. This Western Australian member of the Proteaceae resents summer humidity, so I won't be trying it outside in 'rainforest' North Wales any time soon, but it is just so great to see it flowering in the UK. If only it wasn't right at the back of the border!

The group was introduced to James Kettle, our guide, one of two gardeners looking after the glasshouse. He knowledgably talked us through the layout of the house, explaining that all the plants originate from a Mediterranean climate zone that includes: California, Australia, the Canary Islands, Chile, South Africa, and the Mediterranean Basin itself. To achieve this climate, good airflow, low humidity and above freezing temperatures are maintained in the glasshouse. A free draining soil was initially constructed using Cornish gravel, but the alkaline nature of this is not favoured by many of the plants. As a result they have made changes to ensure a more acidic soil where is it needed.

While walking through the Australian section of the glasshouse, James pointed out some more banksias including *Banksia baxteri B. baueri*, *B. blechnifolia*, and *B. grandis* . He also allowed us to get closer to *B. prionotes*, by carefully picking our



National Botanic Garden of Wales

Left

Entering the great glasshouse

Below

Melaleuca radula





National Botanic Garden of Wales

Above
Banksia baxteri

Right
Banksia lemanniana

Below
Banksia speciosa







Above
Chamaelaucium unciniatum
Geraldton Wax

Below
Melaleuca elliptica





Left
Unknown species of Myrtaceae

Even botanic gardens can sometimes have trouble with ID!

National Botanic Garden of Wales

--



The fossil garden in Wales

Below left
Todia barbara

Below right
Banksia ericifolia





way past some other prickly plants. We also saw many other interesting plants including hakeas, leptospermums, dryandras, melalucas, callistemons, grevilleas and eucalypts (see photos pages 19 20 and 21). A plant of note was *Grevillea maccutcheonii*, only seven of which remain in the wild, and is notoriously difficult to propagate. There were two in the great glasshouse!

The conditions did not suit everything. Some plants were quite leggy and most of the grass trees had died, but James was working hard to correct this situation. Overall, the group managed to spend nearly four hours oohing and ahhing at plants rarely seen in cultivation in Europe.

On leaving the great glasshouse we saw an exhibition of the roots and stumps of giant tropical trees that had been felled, a stark reminder of our impact on the forests of the world. We also were shown round the propagation centre, where we gained an insight into what goes on behind the scenes at the botanic garden. I was especially impressed by the roller benches! From here we made our way through the walled garden and the small tropical house to a well-deserved cup of tea and an exceptional slice of cake.

Visiting the National Botanic Garden of Wales was a truly inspirational experience for me. It was the first time I had visited the National Botanic Garden of Wales and the first society meet I have attended. I am certain it won't be the last on either count.



A FOSSIL GARDEN IN WALES

Robbie Blackhall-Miles

At about the age of five my family moved into my Grandmother's house. It was a very large house with an extensive garden that was dominated by a huge Monkey puzzle tree (*Araucaria araucana*). The tree stood taller than the house and caused a large area of the garden to be much too dry to grow anything. Even the privet hedge around the garden had a huge gap where it ran alongside the tree. Unfortunately the tree also had a Tree Preservation Order which meant that my parents were totally unable to do anything about the 'nuisance' tree.

I loved the monkey puzzle. It was right outside my bedroom window and it was home to multiple pairs of collared doves which I could watch rearing their young.

Another tree came into my life as I grew up, a huge tulip tree (*Liriodendron tulipifera*). It was as tall as the church by which it grew and was my favourite tree to climb. I dubbed it 'the lookout tree' as I could watch the goings on in all of the surrounding gardens from a comfortable spot about half way up.

The tulip tree flowered with its extravagant magnolid blooms every year. These flowers and its

strange leaves prompted my inquisitive mind to find out more about the tree I loved so much. As a budding naturalist, my research led me to learn more about the monkey puzzle too. You can imagine when I discovered that both trees had been around at the time of the dinosaurs my interest only increased.

So, that's how it all started. Whilst my brothers looked at books about dinosaurs and could tell you all their names, I looked at the plants the artist had depicted in the background and was able to tell what each and every one was. A collection of ferns and other prehistoric oddities was started. I would preserve the horsetails (*Equisetum arvense*) growing through the cracks in the patio at all costs (much to my mother's annoyance) and a pond was built so that I could have water lilies (*Nymphaea* sp.).

Life went on, I grew up and moved house and the ferns came too.

Fast forward now to two years ago. Ben (my partner) and I had just bought a house in Llanberis, North Wales, and we had a blank canvas of lawn for a garden. It was time for the ferns to finally have a permanent home. I hadn't really envisaged having a prehistoric garden (although my interest still burned) but on the day we got the keys to the house we went to buy some plants for a hanging basket at the front door and came back with a 5ft (1.5m) tall Wollemi pine (*Wollemia nobilis*). So we hardly had any choice, our fossil garden was born.

All the plants have to be members of families that were around at the time of the dinosaurs or before so we work between 400 and 66 million years ago. It is surprising the variety of plant genera that have been around for that period of time and have a fossil record. It isn't all ferns, cycads and pines either. We have plenty of flowering plants in the garden and many plants from the continents that made up Gondwana (Australia, Africa, South America, India etc).

We have many of the basal angiosperms (the earliest evolving flowering plants) such as *Schisandra*, *Illicium*, *Kadsura* and magnolias (including my much loved *Liriodendron tulipifera* and its Asian counterpart *L. chinense*). Many early divergent monocots (plants with a single seed leaf) such as *Acorus* and *Arum* also feature.

Most notable among the flowering plants in our garden is our collection of early eudicots (plants with two seed leaves), the Proteaceae. A star plant in our garden is our king protea (*Protea cynaroides*) that has flowered regularly, a silky oak (*Grevillea robusta*) noted for having the highest levels of natural cyanide of any plant, waratahs *Telopea oreades* and *T. truncata* and four different species of *Banksia* (see photo page 22). In total we have 25 different members of the Proteaceae, ten of which are from

Australia, and that number is growing all the time as seeds germinate and plants get big enough to join the rest of their tribe outside.

We have a good collection of ferns (some the plants of my childhood), totalling 80 plus species and cultivars, a lot from Australasia. The garden is dominated by a *Dicksonia antarctica* that provides shade and shelter for many others including *Cyathea australis*, *Blechnum nudum*, *Dicksonia fibrosa*, *Todea barbara* (see photo page 22) and *Doodia media* to name just a few. We have climbing ferns, aquatic ferns, epiphytic ferns and filmy ferns.

The non-flowering gymnosperms of course feature heavily in the garden. Among their ranks are *Macrozamia moutperriensis* and *Macrozamia communis* (two cycads from down under) and members of the Podocarpaceae such as *Lagarostrobos franklinii* and *Podocarpus lawrencei*.

As time goes on and the garden gets fuller we have had to become very restrained as to what more we are able to add. I regularly have to stop myself from getting any more 'big trees'. The types of plants we would like to be able to grow are increasingly difficult to come by so it's a good job I work for a plant hunter. There are some very interesting things in the propagator at the moment including *Banksia aemula* and *Isophysis tasmanica* (the most basal extant iris relative) and some even more interesting seed yet to be sown. As time goes on no doubt more prehistoric oddities will be added.

We open the garden by appointment to interested individuals and small groups. More information can be found at www.fossilplants.co.uk.



GREVILLEA ROBUSTA AS A BRITISH TREE

Owen Johnson

As a rainforest tree from northern New South Wales into Queensland, the Silky Oak (*Grevillea robusta*) is always likely to be a long shot in British gardens, but with its straight growth and plumes of orange blossom it is so attractive that quite a few adventurous plantsmen have tried it.

The Dorrien-Smith family introduced it to Tresco in 1856 (R.King, *Tresco – England's Island of Flowers*) but the example recorded from the North Walk in the 1980s presumably met its nemesis in the 7 degrees of frost in January 1987 – as did a forked plant at Cockington Court outside Torquay which had reached 9m when measured by Alan Mitchell in 1984. In Swansea's Brynmill Park, one that started life in a conservatory north of the lake survived this building's demolition and in the spring of 2000 was a beautiful spire 9m tall, but browned and tattered even after a mild winter. By 2005 it had grown

to 12m, but the cold of December 2010 was intense in south Wales and it is no longer there.

Grevillea robusta is doubtless tenderest as the sapling stage, and will be healthiest and likeliest to weather a chilly winter when the British summer is as long and hot as possible. Two young trees (4m and 2.5m tall) in a north-facing front garden in my home town of St Leonards in East Sussex were completely defoliated by 4 degrees of frost in 2008 and were dead after 5 degrees the next winter.

Several were planted by the local Tree Officer around 2000 under the south-facing front of Rotherhithe police station, ideally situated in inner London's heat island. By 2005 there were two survivors, one 8.5m tall but poorly-shaped because of early damage, the other 6m tall and showing bad frost-damage to the trunk.

It was a real surprise to find the larger of these not only still alive in 2013, but looking set to make a big tree. It is 13m tall with a trunk 35 cm thick, having sorted itself out to make a straight-stemmed luxuriant tower (see photo page 31). Its Achilles heel may be the kink at its base from the early cold-damage, though its longer-term response to London's low summer rainfall totals is unknown. *Grevillea robusta* might best be planted in Britain as a tall standard, in exceptional niche habitats such as this.



LEPTOSPERMUM NAMADGIENSIS IN MY GARDEN

Maurits de Vries

I have two *Leptospermum namadgiensis* in my garden. One is a very big shrub, it is growing very fast and it`s a real shrub with branches in every direction (see photo page 32). The other one is more growing in height and I removed all the lower branches. So I try to grow it like a tree. When I removed some of the bark I noticed a pure green stem). It will be very impressive if the stem will be a little bit thicker after a few years. My plants flowered in 2013.

Both my plants are very cold tolerant. I couldn't even find a dead branch after two cold winters. I have to say that I protected my plant with a tarpaulin for the winters where I live are very long and the soil was frozen for a long time. We can have in the winter every night -5°C. In de Bilt which is near to where I live the lowest temperature recorded in winter of 2012-13 was -18°C[1] and where I live is colder than de Bilt. I think that growing Australian plants in my area is on the edge. It is much colder than for example Utrecht or Amsterdam.

I obtained my *L. namadgiensis* cuttings from an US nursery in 2010. I think that the species was introduced to the US by Paul Bonnine from Xera plants[2]. There

are a few nurseries in the US that list *L. namadgiensis*. Another US nursery, Cistus, writes: "*To us the most striking feature is the bark, peeling in sheets to a light orange. Plants in the garden should be lifted to expose this lovely feature.*"[2] I`m pleased to send cuttings to APS members If they want to try it in their garden

I also have a few eucalypts in my garden. One is *Eucalyptus pauciflora* ssp. *niphophila*. It`s 10 years old and it has a very nice bark. Another is *E. gunnii* 'Azura' which John Purse wrote about in Pentachondra issue 48. My specimen is extremely cold tolerant and was untouched after our cold winter. And a third is *E. pauciflora* ssp. *debeuzevillei*. I grew this one in the rootmaker or rootbuilder pots of Carl Whitcomb. It has roots growing in every direction and it looks very happy in my garden. You can find out more about my garden at www.tropische-tuin.nl.

Sources:
1. Wintergek: For those keen on winter http://translate.google.nl/translate?sl=nl&tl=en&js=n&prev=_t&hl=nl&ie=UTF-8&u=http%3A%2F%2Fwww.wintergek.nl%2Factueel%2F&act=url
2. A great US website: http://plantlust.com/plants/leptospermum-namadgiensis/.

Editor's note
Leptospermum namadgiensis is relatively new to botany. It was first collected less than 30 years ago and named by Andrew Lyne in 1993. So far it has only been found in the Australian Alps in an area south west of Canberra on the border between ACT and NSW, where it is occurs at an altitude of 1500-1820 m. (Local Aborigines call this area Namadgi, hence the species epithet.) It grows in shallow, gravelly soil on ridge tops and summits above 1500m, in shrubland or woodland where it is often associated with *Eucalyptus pauciflora*, *Leptospermum micromyrtus*, *Kunzea muelleri*, *Oxylobium alpestre* and *Asterolasia trymalioides*.

Sources:
Lyne AM, 1993, *Leptospermum namadgiensis (Myrtaceae), a new species from the Australian Capital Territory - New South Wales border area*, **Telopea,** vol 5, number 2 (http://plantnet.rbgsyd.nsw.gov.au/Telopea/results.php?Where=ArtVolume=%275%27+and+ArtIssue=%272%27&Restriction=ArtParentRef=3) and http://www.anbg.gov.au/leptospermum/leptospermum-lyne/leptospermum-namadgiensis.html.



SOPHORA TETRAPTERA AND RELATED SPECIES

© Gary Dunlop

Growing Australasian plants goes back to within a few years of when they were first discovered. One of the earliest introductions from the

antipodes was *Sophora tetraptera*, which was first grown in the Apothecaries Garden Chelsea, planted in about 1774 by Mr Forsyth. It was raised from seed, collected and brought back by Joseph Banks in 1771, when he accompanied Lieutenant Cook on the voyage on which they discovered New Zealand and Australia. Like most of the new plants discovered on this voyage, it was illustrated by Sydney Parkinson, and most likely named by Daniel Solander, who had studied under Linnaeus, both of whom were in Joseph Bank's retinue[1]. A description and illustration of it was published by JS Mueller in 1780[2] and subsequently illustrated in the Botanical Magazine[3].

It was not until 1789 that a second species, *S. microphylla*, also raised from seed brought back from New Zealand by Joseph Banks, was named and described by William Aiton in 1789[4]. The delay in *S. microphylla* flowering is because it undergoes a turbulent adolescent stage as a scrambling shrub before finally starting to become a tree. In 1808 the name of the genus was changed to *Edwardsia* (after Sydenham Edwards, the botanical artist) by Richard Anthony Salisbury, the President of Linnean Society, as the antipodean species were deemed to be different to the description of the plant in the pea family to which Linneus had established the generic name, *Sophora.* Salisbury renamed *S. tetraptera* as *Edwardsia grandiflora,* unusually not retaining the original specific name, and the second species with finer foliage as *E. microphylla*[5]. It was subsequently illustrated in the Botanical Magazine under that name[6]. However the generic name *Sophora* established by Linnaeus in 1754[7] was subsequently re-established for the New Zealand plants, most likely by Sir Joseph Hooker[8], when he re-established the specific name *Sophora* for *S. tetraptera* ssp. *microphylla*, after previously designating it as *Edwardsia tetraptera* ssp. *microphylla*[9].

S. microphylla was subsequently reinstated as a species by HH Allan in the Flora of New Zealand[10]. It has fine pinnate foliage with small leaflets and small clusters of smallish narrow flowers up to 4.5mm long and ranging from lemon to saffron yellow (see photo page 32). It makes a tree 6 to 9m tall with a trunk between 30 to 60cm in diameter (photo page 32). It is widespread on both North and South Islands. It was also found to be native to Chile, but this form has now been established as a separate species, *S. cassioides*[11].

Allen describes two varieties of it, var. *fulvida* and var. *longicarinata,* but reduces *S. chathamica* (Cockayne) to be a synonym of *S. microphylla*. Laurie Metcalf[12] notes that *S. microphylla* var. *fulvida* is very distinct in having very small leaves similar to *S. m.* var. *longicarinata* but has distinctly larger flowers that other New Zealand *Sophora,* and he

implies it might be more suitably considered as a species in its own right. More recent research in New Zealand[11] has vindicated this view and raised both varieties to specific rank as well as re-establishing *S. chathamica*, and establishing two new species *S. godleyi* and *S. molloyi*. However, the Plant List retains these five new species as being 'under review', as the differences are not as clear-cut as would normally be considered by some botanists to be sufficient to differentiate between species. These putative species have also given rise to a number of hybrids.

Laurie Metcalf[12] also describes two selected cultivars of *S. microphylla.* 'Early Gold', which was raised from seed collected on Stevens Island in 1962, is relatively dwarf, of good shape, and flowers early with an extended flowering time, albeit rather sparsely. *S. microphylla* 'Ohingati' is'*erect growing with graceful pendulous branches*'.

A third species, *S. prostrata*, was established in 1884 by John Buchahan[13], subsequently reduced to a subspecies of *S. tetraptera*, and then reinstated as a species by H.H.Allan[10]. It is distinct in appearance, normally forming a dense hummock up to 60cm, but in more sheltered conditions can reach 1.8m high. Laurie Metcalf mentions one cultivar *S.*'Little Baby' but notes that it is apparently no different from the species. It is known to hybridise with *S. microphylla* where the species grow in proximity in the wild.

Sophora tetraptera is the most widely grown of the New Zealand species in the British Isles. It makes an irregular upright branching tree to about 12m tall, with a trunk 30 to 60cm in diameter, though often branching not far above the ground. The fine pinnate foliage has slightly larger leaflets than *S. microphylla*. The flowers are held in large clusters, shorter at 2.5cm long, but broader than those of *S. microphylla*, and range in colour from yellow to orange. It has a more restricted range in New Zealand, and is only found on the east side of the north island, from slightly south of the East Cape. Despite its northerly natural habitat it has proved to be remarkably hardy in cultivation in the British Isles and certainly surviving temperatures as low as –16ºC. Laurie Metcalf only describes one cultivar, *S. tetraptera* 'Gnome', '*an erect, stiffly branched bushy shrub growing up to 2.4m tall*', with large buttercup yellow flowers. He is dismissive of the form sold by nurseries as *S. tetraptera* 'Grandiflora' as being different from the normal form of the species, and goes on to point out that the cultivar name 'Grandiflora' would be inadmissible as the name was used previously in an earlier botanical name for the species.

Nevertheless, this cultivar name persists in Northern Ireland for a form that is distinct from what I

consider to be the typical species and comes true from seed. It forms a much more broadly spreading tree, particularly towards the south or sunniest aspect, with paler yellow flowers, which open more widely, and with green rather than pale bronze calices, and may have larger clusters of flowers. I grow both forms, from which the floral comparison was made (see page 32).

Two other subspecies of *S. tetraptera* have been recognised growing on Pacific islands, *S. tetraptera* var. *howinsula*[14] and *S. tetraptera* ssp. *fernandeziana*[15], both of which have subsequently been raised to species in their own right[16,17].

S. tetraptera is known to hybridise with *S. microphylla* in the wild in New Zealand and one hybrid named *S.*'Sun King', has occurred in cultivation at Hillier's Nursery, albeit with *S. cassoides* from Chile. It appears to be evergreen despite both its parents being semi-evergreen.

A surprising number of the New Zealand forms and cultivars of *Sophora* are available in the United Kingdom, having being introduced, like so many New Zealand plants by the late Graham Hutchins, of County Park nursery, fortunately still in operation and now run by Paul Boosey, though regrettably it still does not offer a postal service.

It would seem that the New Zealand *Sophora* grow better or have been grown for longer in Ireland, as the only substantial specimens mentioned, in Owen Johnson's book Champion Trees are all in Ireland[18]. The only large specimen of *Sophora microphylla* mentioned is in St.Stephens Green in Dublin, at 15.5m tall in 2007, which is more than twice the height of the wall grown specimen in Castlewellan Arboretum in Co Down. All three large specimens of *Sophora tetraptera* mentioned are in Co Down, measured in 2000. The tallest at Rostrevor House at 11.5m has since been lost, as has the second tallest at 10m tall, in the Italian garden at Mount Stewart. The third tree mentioned at 7.5m is in Ballywalter Park the estate of Lord Dunleith.

References:

1 Carr, D.G. ed 1983.: Sydney Parkinson: Artist of Cook's first Voyage. p.113 Croom Helm London & Canberra.
2.Mueller, J. S. 1780: Icones Nov. tab.1
3 Curtis W. 1791: Sophora tetraptera tab.167. Vol. 5 Bot. Mag.
4 Aiton W. 1789: Sophora microphylla p.43 Vol 2 Hortus Kewensis
5 Salisbury R A 1808: Some remarks on the Plants now referred to Sophora,.. pp 296-300, Vol.9 Trans. Linn. Society
6 Sims, J. 1811: Edwardsia microphylla tab.1442 Vol 35-6 Bot. Mag.
7 Linnaeus. C. 1753: Sp.plantarum
8 Hooker, Sir J. 1864: Handbook of New Zealand Flora. p.53
9 Hooker, Sir J. 1852: Flora of New Zealand p.52.
10 Allan, H.H. 1961 (1982 reprint): Flora of New Zealand Vol.1.pp.369





Above and left

***Grevillea robusta* in Rotherhithe**

Below

***Leptospermum namadgiensis*, Maurits de Vries' garden**









Above left

Flowers of *Sophora tetrapters* and *S. tetraptera* 'Grandiflora'

Above right

Flowers of *S*. Sun King with the flowers of the two forms of *S .tetraptera*

Left

Sophora microphylla



Cycad
David Ware's garden

11 Heenan P.B., de Lange P.J. & Wilton, A.D. 2001: Sophora (Fabaceae) in New Zealand: taxonomy, distribution and biogeography. New Zealand J. Bot. Vol.39 pp.17-53
12 Metcalf, L.J. rev.ed.1987: The Cultivation of New Zealand Trees and Shrubs. pp.309-10 Reed Methuen Auckland.
13 Buchanan, J.1884: Trans. N.Z. Inst. 16 p.365 tab.36
14 Oliver, W.R.B. 1917: Transactions of New Zealand institute. Vol.49 p139
15 Skottsberg, 1914: Kongl. Svenska Vetenskapsakad. Handl. Vol.51 (9) p.8
16 Green, P.S. 1970: Journal of the Arnold Arboretum. Vol.51 p.204
17 Skottsberg, 1921: Natural History of Fernandez and Easter Island. Vol.2 p.140
18 Johnson, O. 2011:Champion Trees of Britain & Ireland. p.155 Kew Publishing.

GROWING POINTS

Atherosperma moschata at Knoll

Jeff Layman visited Knoll on 24 October as he wanted to see the *Atherosperma moschatum* (southern sassafras) there. He reports that 'it is around 8m high and about 3m across, and was covered in buds for next year's flowers. It is well-protected by surrounding hedges, trees, and other shrubs, and according to the staff there it has survived for many years without any problem. In fact, at Trehane Nursery next door, they tell me that the temperature there has fallen as low as -10°C there). So maybe I will plant mine out in a protected position in a year or two."

Phosphorus sensitivity

Thanks to Nicholas Koleszar for drawing attention to areport of a CSIRO trial that tested the phosphorus sensitivity of a huge range of Australian plants (asgap.org.au/apol8/dec97-4.html). Species found to be most sensitive included *Acacia boormanii*, *A. cultriformis*, *Banksia blechnifolia*, *B. paludosus*, *Hardenbergia violacea* and *Petrophile sessilis*.

A cycad and a puya

David Ware reports that he has been growing what he believes is a burrawang cycad (*Macrazamia communis*) in his Kent garden (see photo page 32). He acquired it some four years ago from the Palm Centre in Richmond, Surrey (www. palmcentre.co.uk). It likes well drained soil and will take full sun to shade. He keeps it outside from May to mid September. Another plant doing well is *Puya mirabilis* from Bolivia which he got as a baby at an APS meeting about 5 years ago. It flowered for the first time in 2013 and goes outdoors from May to October.

Blandfordia punicea

At a recent talk given by Chris Clement, the gardens manager at Wakehurst Place, I heard that *Blandfordia punicea* (Tasmanian christmas bells) does well in their monocot border by the walled garden. It has been there for three or four years and has proved hardy despite recent cold winters.



The HARDY PLANT SOCIETY

Inspiring the cultivation of hardy perennial garden plants

The Hardy Plant Society encourages interest in growing hardy perennial plants and provides members with information about familiar and less well known perennial plants that flourish in our gardens and how to grow them. This friendly society offers a range of activities locally and nationally, giving members plenty of opportunity to meet other keen gardeners to share ideas and information in a convivial atmosphere. The activities and work of the Society inform and encourage the novice gardener, stimulate and enlighten the more knowledgeable, and entertain and enthuse all gardeners bonded by a love for, and an interest in, hardy perennial plants.

- **Local Groups** - Over 40 Local Groups spread across the UK
- **Specialist Groups** - For those with interest in a particular plant family
- **Seed Distribution Scheme** - Including sometimes difficult to find varieties
- **Shows and Events** - Exhibits at Major shows plus many Local Group events
- **Conservation** - Conserving older, rarer and lesser-known plants
- **Publications** - Colour Journal, National Newsletter plus a series of quality booklets on selected plant families
- **Photo Library** - A wide range of images of hardy plants available for loan

If you are interested in joining us, please contact Pam Adams on Tel: 01386 710 317 or visit our web site at www.hardy-plant.org.uk

The soil in which it grows at Wakehurst has not been specially treated but presumably it meets the general conditions that *Blandfordia* are said to require: light and well drained but moist soil which is lime free. Interestingly though it has apparently had a lot of compost dug in over the years. Jeff Irons reported that in cultivation it grows poorly in low nutrient mixes (Pentachondra issue 9, November 1992). In its native Tasmania *Blandfordia punicea* grows in damp heaths on nutrient poor soils

The seed of *Blandfordia* species is said to be slow to germinate. Jeff Irons found that stratifying twice improves germination. He advised sowing fresh seed in spring, followed by 4-6 weeks in a refrigerator and then 4 weeks in a greenhouse or outdoors, after which germinated seedlings are removed and the seed container put back in the refrigerator for another 4 weeks. The APS offers seed - has anyone tried this?

Western Australian sundews

The December 2013 issue of The Plantsman includes an article by Nigel Hewitt-Cooper (www.hccarnivorousplants.co.uk) on growing tuberous sundews (*Drosera* species). There are about fifty of these winter flowering perennials and they are found predominantly in Western Australia. Hewitt-Cooper, who holds a national collection of *Drosera*, describes thirteen of them, all of which he says are "*relatively easy to grow*", as well as providing detailed information about cultivation and propagation. All this was new to me and I

began to dream of a greenhouse full, except I don't have the space or the time. But maybe one: who could resist a plant with the specific *zigzagia*? If you want to know more about what these species look like and where they grow in the wild go to florabase.dpaw.wa.gov.au.

How hardy are correas?

The 2013 RHS Award of Garden Merit (AGM) list includes seven correas, commonly known as Australian fuchsias. All are given a rating of H2 on the new RHS hardiness scale introduced in 2012. The definition of an H2 plant is one which is tender, tolerant of low temperatures but not surviving being frozen, and except in frost-free inner-city areas or coastal extremities requiring glasshouse conditions. The temperature range is given as 1 to 5ºC, equivalent to 10b on the USDA scale, except that the lower end of each range is intended to indicate the absolute minimum winter temperature a plant can stand, unlike the long-term average annual extreme minimum temperature used for the USDA zone.

Three of the AGM plants are *Correa backhouseana*, in my garden since 2006, and *C.* 'Marion's Marvel' and *C.* 'Mannii', both in my garden since 2008. *C. alba* 'Pinkie is another AGM plant; I have grown *C. alba* 'Starlight' since 2003. Now I may reside in a fairly favourable location but even this coastal extremity has experienced winter temperatures below zero in recent years, at times several degrees below, not to mention frosts of varying severity which in the coldest spells have lain all day. I don't protect my plants in winter, apart from a bit of gravel mulch, but not one of these correas has shown any cold damage.

Correas are attractive and easy going plants which deserve to be more widely grown, especially as they flower in winter. Being over cautious about their hardiness does not do them any favours in this respect. I would be really interested to know what others have observed regarding the hardiness of correas but my experience suggests that H3, half-hardy, with a temperature range of 1 to -5ºC, would be more appropriate for some of these AGM plants.

A pdf of the RHS hardiness scale can be downloaded from (www.rhs.org.uk/Plants/Plant-trials-and-awards/pdf/2012_RHS-Hardiness-Rating).

❀❀❀❀❀❀❀❀❀❀❀❀❀❀

BITS AND PIECES

Name changes

Recent advances in taxonomy are one reason for proposals to rename plants. However, making a proposal does not automatically mean the change will be made, as happened with the proposal, made about ten years ago, to change the

names of most Australian *Acacia* species to *Racosperma.*

Proposals for changes may also, at least initially, be accepted by some and not others. In Australia this is the case with *Callistemon* and *Melaleuca*, with some State herbaria opting to keep the two genera separate while others have transferred *Callistemon* to *Melaleuca*. Until recently this was also the case with the proposal to subsume *Dryandra* into *Banksia*, but now that the Australian Plant Census (APC) has come out in favour *Dryandra* looks set to eventually disappear. This means, for example, that *Dryandra formosa* becomes *Banksia formosa* in Australia.

Other changes recently accepted by the APC see *Pratia pedunculata* become *Lobelia pedunculata*, the name originally given to it by Robert Brown, and *Derwentia* become *Veronica*. In the UK, the Plant Finder retains the name *Parahebe*. So what was *Derwentia perfoliata* (digger's speedwell) has in Australia become *Veronica perfoliata* but in the Plant Finder is still *Parahebe perfoliata*, though *V. perfoliata* is accepted as a synonym.

Other changes are more complicated. Several years ago I purchased *Baeckia virgata* from PlantBase. In Australia the name had already changed some time ago, and not just the name. What happened was that it was accepted that the plant formerly known as *Baeckea virgata* does not actually occur in Australia. This plant became *Babingtonia virgata* and Australian plants formerly referred to *Baeckea virgata* were separated into a number of species which were also given the generic name *Babingtonia*. Some other *Baeckea* species were also transferred to *Babingtonia*. Then further study reduced *Babingtonia* to two species and transferred the rest to other genera. What the correct name for my plant might be is not yet clear to me, maybe *Sannantha* but I'm not ready to bet on it.

AGMs for Australasian plants

Every ten years the RHS conducts a review of the plants which have been awarded an AGM (Award of Garden Merit). The AGM is intended to signify a plant which is highly ornamental, easy to grow, not plagued by pests or diseases and commercially available. The results of the latest review were released in February 2013. New Australasian additions include *Celmisia angustifolia*, *Clianthus puniceus* and two of its cultivars, 'Albus' and 'Roseus', *Chionochloa rubra*, *Eucalyptus caesia*, *Eucalyptus pauciflora* subsp. *debeuzevillei* and *Leptospermum grandifolium*. (I grow this last species, a beautiful greyish leaved shrub that will grow tall if it likes you. It is perfectly hardy in my garden and doesn't seem to mind salt winds.) A pdf of the complete list can be downloaded from: www,rhs.org.uk/Plants/Plant-trials-and-awards/pdf/2013-AGMs/AGMReviewCompleteOrnamentals.

On the web

Interested in wattles? Then take a look at asgap.org.au/acaciaSG/index.html, the website of the Acacia Study Group (one of about twenty study groups within the Australian Native Plants Society (Australia)). Not only does it cover the key facets of acacia growing clearly and succinctly; twelve years worth of their meaty quarterly newsletters are free to download.

Also free to download, over forty years worth of **Nuytsia**, Western Australia's Journal of Systematic Botany (florabase.dpaw.wa.gov.au/nuytsia/). Just looking at the indexes with all their articles on new species makes one realise just how rich the WA flora is: over 11,000 native species and counting, without including sub-species. Ninety-five new records were added to the state's flora in 2012 alone, of which 84 were newly described species and sub-species.

French nursery

Jeff Layman suggests that members might be interested in French supplier Florama which offers both plants and seeds. The main problem, if you don't speak French that is, is that everything's in French, but Google Translate isn't bad these days, and in any case most of the relevant information is botanical. Jeff found out about the site from a post in the uk.rec.gardening newsgroup. According to the post, the owner of Florama will be running it down over the next couple of years, starting next year, although there will be a new catalogue in August 2014. To find out more go to www.florama.fr/ and click on 'Graines et Plantes'. Mail order is offered, though it's not clear whether it would extend to the UK.

The Australasian Plant Society

Minutes of the Annual General Meeting 2013
Held at the National Botanic Garden of Wales on 30th June

Members Present
Tom Hart Dyke: President
Keith Larkin: Chairman
Jeremy Spon: Treasurer/Membership Secretary
Judy Clark: Newsletter Editor
Amanda Kershaw: Meetings Secretary
Robbie Blackhall-Miles
Dennis Blundell
Tim Darrington
Tony Entwistle
Ben Ram

Guests
Ann Entwistle
Hilary Spon
Gemma Wright

The meeting opened with Keith Larkin paying tribute to Jeff Irons, who sadly died earlier in the year. Keith reminded us that Jeff had been the driving force behind the setting up of the Society, and for many years was Chairman and administrator of the seedlist, as well as writing many articles for the newsletter, Pentachondra. Jeff's knowledge of growing Australian plants in the UK was second to none, and as he was always very generous in sharing his knowledge he would be sorely missed. The next edition of Pentachondra would be dedicated to Jeff's memory, and Judy hoped to include lots of members' recollections of Jeff; Keith agreed to email members asking for contributions along these lines. We then moved on to the usual agenda.

1. Apologies for absence.

Apologies had been received from Alex Boyle, Peter Kohn, Jeff Layman, Greg Plenty, John Purse and Stephen Wood.

2. Minutes of the previous meeting.

These were approved without amendment.

3. Matters arising.

There were none which were not covered by agenda items.

4. Secretary's report.

In her capacity as contact point for enquiries, Judy Clark reported that she had dealt with a few miscellaneous queries, but nothing of great significance.

5. Treasurer's report.

The Treasurer reported that the financial situation was still healthy, as shown by the accounts published in the last issue of Pentachondra. Costs were being covered by subscription income, and our reserves were substantial in the context of our normal annual expenditure. Membership had again fallen slightly, but there was a steady trickle of new members which almost offset the numbers resigning or failing to renew their membership. As of the date of the meeting, membership stood at 111 (with two further new members joining in the subsequent few days.)

One point to bear in mind when looking at the accounts was the fact that Richard Christmas had not claimed any expenses incurred in running the seedlist for several years, so our financial position was probably slightly less healthy than it appeared. As noted below, this situation was clarified shortly after the meeting. The Treasurer also raised the question of subscriptions/ seed payments from members in Europe, and the discrepancy between those who have British bank accounts and therefore pay in sterling (£15/£5) and those who use Paypal and are charged in euros (15/5 euros.) With the fluctuations in exchange rates, and Paypal charges, the Society ends up receiving considerably less from those members paying in euros than from those paying in sterling. Quite apart from the issue of fairness, there is a

danger that we will not fully recover the cost of providing benefits to members using euros. It was therefore agreed that in future Paypal payments would be requested in sterling, with the members then paying the equivalent euro amount as calculated by Paypal.

6. Newsletter Editor's report.

Judy appealed once again for more contributions for the Newsletter. She also raised the question of copyright, which some authors of articles request be specifically mentioned as remaining with them. She wondered if this was acceptable to the Society, and what the normal practice was in other societies. After some discussion, it was agreed that it was best to continue with the present arrangements, whereby any copyright statement regarding a specific article would be as requested by the author. Jemma pointed out that by default copyright would remain with the authors anyway, and that in most cases copyright was only transferred to the publisher if the author was paid for the article.

Judy was thanked by the Chairman for again doing such a good job in producing our Newsletter.

7. Seed-list Manager's report.

Neither the Chairman nor Treasurer had heard from Richard Christmas, so no report was available. However, shortly after the meeting, Richard did contact the Treasurer. 22 orders for seed had been placed so far, down again on the previous year. Richard also claimed all the outstanding expenses owing to him, which amounted to £626.15, which covered the years 2011 - 2013 (these costs will be shown in next year's accounts.) Costs both for buying seeds, and posting out orders, had increased considerably over this period, so the overall loss on the list was also increasing year on year, especially with the decline in orders. This was clearly something that would need to be addressed in the fairly near future.

8. 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.

9. Next Year's AGM and other meetings.

After some discussion it was agreed to investigate the Royal Botanic Gardens, Edinburgh as a venue for next year's AGM, with the possibility of making a weekend of it by also visiting Glasgow Botanic Garden. Wakehurst and Meon Orchard were suggested for other meetings. Tom Hart Dyke also offered to host another meeting at Lullingstone; as there was considerable interest in this, and Tom was keen for us to see how the Australian collections had progresssed, it was agreed that this should be arranged for later this year (2013); 11th August was provisionally agreed on

as the date, and members would be notified by email once this had been confirmed.

10. Any other business.

Keith expanded on his previously expressed wish to stand down as Chairman at some point in the not too distant future, saying that he felt he was running out of ideas, and that as we had tried most of his suggestions, it was time for someone else to take up the reins. There then followed discussion of various ways that we might develop and grow the Society.

The RHS Specialist Societies days would be investigated further, with Tom being due to meet representatives of the RHS in the next couple of weeks. It was noted that it would be good to try and capitalise in some way on the success of the Flemings Australian garden at Chelsea this year. The website still needed enhancement, and Keith again appealed for pictures and other material for this.

Robbie raised the question of marketing and publicity, and particularly the use of Twitter and Facebook, which he felt could be invaluable. In view of some uncertainty amongst those present about how this might work, and the possible risks, Robbie offered to put together some information and suggestions and circulate them to the committee. He also offered to take on the role of managing our presence on social media if the committee agreed that this was a desirable move.

Keith then raised the wider question of the scope of the Society, in particular whether it might be desirable to include more on Australasian plant habitats, and even to expand the geographical coverage to include South Africa and South America. He agreed to put together some discussion points on this to be circulated to the committee, and perhaps eventually to the wider membership.

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

Illustration acknowledgements

Robbie Blackhall-Miles: page 22
Judy Clark: page 21 (right hand side of page)
Gary Dunlop: page 32 (upper two photos) and front cover
Rodger Elliot: bsck cover
Tom Hart Dyke: page 10 (top of page)
Jeff Irons: page 9
Owen Johnson: page 31 (upper two photos)
Ben Ram: pages 10 (bottom of page), 19, 20 and 21 (left hand side of page)
Maurits de Vries: page 31 (bottom of page)
David Ware, page 32 (bottom of page)