AUSTRALASIAN PLANT SOCIETY
NEWSLETTER

PENTACHONDRA

ISSUE 47 DECEMBER 2011



***Richea scoparia* flowering on 31 December 2011**

AUSTRALASIAN PLANT SOCIETY

Newsletter Number 47

DECEMBER 2011

CONTENTS

Editorial, Judy Clark	1
APS News	1
AGM Report: Kew's Australian Garden, Judy Clark	3
Australian Plants in the Spotlight, Jeremy Spon	3
Australian Rhododendrons, Jeff Irons	6
The genus Libertia, Gary Dunlop	7
Eucalyptus gunnii: The pioneer Australian tree in Britain, John Purse	17
Eucalyptus gunnii in New Zealand, Graham and Heather Milligan	26
Notes from Kilravock, Phemie Rose	27
Letter from Sheffield, George Smith	28
And his epitaph shall say, Graham Sumner	29
Farewell to Kerrachar, Peter Kohn	34
Book Review: Champion Trees of Britain and Ireland, Jeremy Spon	36
Minutes of the APS Annual General Meeting 2011	37

All rights reserved.No part of this publication may be reproduced in any form or by any means without prior permission of the Publisher.

© Australasian Plant Society, authors and illustrators of individual articles.

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



Australian plants at Kew, July 2011

EDITORIAL

Judy Clark

I had so many contributions for this issue of Pentachondra that I have been unable to include them all. Thanks to everyone who put pen to paper and if your article is not here it will appear in the May issue. I'd also like to apologise for this issue appearing somewhat later than normal, due to circumstances beyond my control.

December 2010 saw much of the UK in a deep freeze but December 2011 has seen barely a frost, at least in my part of the world. The lack of winter cold (so far - fingers crossed) has seen not a few species flowering out of season, but perhaps none so unusual as the one pictured on the front cover. It is *Richea scoparia*, photographed on December 31st in full flower in Jeff Irons' garden in the Wirral, Its normal flowering time is summer, here and in its native Tasmania. A good omen for success with Australasian plants in 2012? I hope so. Happy gardening!

APS NEWS

APS Committee

The proposed changes detailed in the last issue of Pentachondra were agreed at the 2011 AGM (see minutes of the meeting page37). The main changes are as follows.

Jeremy Spon has taken over as Treasurer and Membership & Minutes Secretary, to make sure that we handle new membership applications and enquiries as effectively as possible. Amanda Kershaw is taking on the role of Meetings Secretary. She would welcome members' suggestions for meetings, especially regional ones. In addition to remaining as Pentachondra Editor I am taking on the role of General Enquiries Secretary, to respond to enquiries other than membership.

Sadly, Jeff Irons asked to step down as President. Jeff was a founding member of the APS and undoubtedly the main force behind its establishment in June 1988. I am sure that all members will join me in thanking him for all the work he has done for the Society over the years. He is still contributing to Pentachondra (see page 6) and I hope he will continue to do so in the future.

New president: Tom Hart Dyke

The Committee is delighted to announce that Tom Hart Dyke has agreed to become APS President. Tom is well known as an intrepid plant hunter and the founder of the World Garden of Plants at Lullingstone Castle in Kent (see Pentachondra issue 45, page 33). I am sure all members will join us in welcoming him to his new role.

APS meetings 2012

Arrangements for the 2012 AGM have not yet been finalised but the plan is to hold it at Cambridge Botanic Gardens in the summer. Full details will be published in the May 2012 edition of

Pentachondra, and members who have provided an email address will be notified by email as soon as the date is known.

Abbotsbury Subtropical Gardens in Dorset (www.abbotsbury-tourism.co.uk/gardens/index.htm) will be the venue for a southern meeting on Sunday 17th June. Full details will be included in the next issue of Pentachondra.

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 (contact details are inside the back cover).

From the Treasurer

The Treasurer would like to encourage members in the UK to pay by Standing Order as this reduces the need for reminders to be sent when, as inevitably happens occasionally, a member forgets to renew their subscription. It may be that due to the disruption caused by the sudden death of Aubrey Wood, our former Treasurer, members who requested standing order forms last year did not receive them. If this has happened to you please accept our apologies and request the form again when you renew for 2012.

2012 Seedlist

The 2012 seedlist and application form will be sent out with the May 2012 newsletter as usual. If you can't wait till then you can get it by email from 31st March 2012. In the first instance please contact Judy Clark, Pentachondra editor, at editor@anzplantsoc.org.uk.

The charge for seeds remains unchanged from 2011; £4 for UK members, €5 for eurozone members and £5 for all other members. If preferred, overseas members can pay for seeds together with their subscription, but please add a note to your

Subscriptions are due

All subscriptions are due on 1st January 2012. 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 remain the same as in 2011; £10 for UK members, €15 for members living in the eurozone and £15 for members living in the rest of the world.

To facilitate secure payment for overseas members without UK bank accounts we have set up payment via PayPal. If you would like to pay 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.

renewal form saying that you have included the seed charge.

Bob Foulds

Last May I was saddened to hear of the death of longstanding member Bob Foulds. APS southern meetings were regularly enlivened by his dry wit and extensive plant knowledge which also informed the articles he wrote for Pentachondra. His generosity means he lives on. I have a flourishing *Kennedia coccinea* thanks to Bob as well as an *Anigozanthus flavidus* which to me will forever be 'Bob's Red'.

New members

The APS would like to extend a warm welcome to new members Paul Reddy, Jim Stephens, EW Latham and Dott. Massimo Cantoni.

Pentachondra contributions

The deadline for the next issue is **31st March 2012**, but you don't need to wait till then; any time will do. Any article that has at least a passing connection with Australasian plants will be welcome. The same goes for photos and drawings, whether to accompany articles or as stand-alone items (with a caption please). And don't hesitate to contact the editor beforehand if you have any questions.

Contributions should be sent direct to the editor. Articles may be submitted electronically or as typed hard copy. Photos and drawings should be submitted electronically, preferably in separate files from articles, and not compressed before sending (don't worry about sending large files).

❀❀❀❀❀❀❀❀❀❀❀❀❀

AGM REPORT: Kew's Australian Garden

Judy Clark

The APS visit to Kew for the 2011 AGM was hosted by Steve Ruddy, Head of the Garden Development Unit. After a presentation about the Australian Landscape at the British Museum (see next page) Steve took us to see a small but beautifully formed garden comprised wholly of Australian plants. It was crammed with colourful species, some the same as in the British Museum display, and as the photos (pages 9, 10 and back cover) show it provided a wonderful demonstration of possibilities for designing gardens in the UK using Australian plants.

❀❀❀❀❀❀❀❀❀❀❀❀❀

AUSTRALIAN PLANTS IN THE SPOTLIGHT

Jeremy Spon

The Australian Garden at Chelsea 2011

There were actually two so-called Australian gardens at Chelsea in 2011. One of these, that created by Flemings, the Australian nursery and garden centre business, was

Australian only in the sense that it was designed and built by a team of Australians. It featured no actual Australian plants, and was more or less indistinguishable from numerous other past gardens at Chelsea. It was the garden created by the RBG Melbourne (see photo page 10) that I was very much looking forward to seeing, and which was one of the main reasons I decided to go to Chelsea this year. The advance publicity suggested the garden would feature many plants not seen at Chelsea before, and the promise of the designers to try and evoke the spirit of the Australian Garden at Cranbourne, about which Judy Clark has written so enthusiastically in previous Pentachondras (including the May 2011 issue), certainly raised high hopes.

In the event, I was rather disappointed. As with so many Chelsea show gardens, design dominated at the expense of plant content, and the hard landscaping was far more prominent a feature than any unusual plants. The construction of the garden was immaculate, but I could not help wondering if problems sourcing Australian plants in Europe had limited the variety and impact of the planting. Many of the plants used will have been unfamiliar to most visitors to the show, and I do not think many will have gone away vowing to introduce lots of Australian species into their gardens. It was also unfortunate that the leaflets being given out were very short on information about hardiness and cultivation techniques; nor did the volunteers manning the stand, at least on the day I went, seem to know much about these subjects either. As is usual with Chelsea display gardens, individual plants were not labelled. In the end I came to the conclusion that the garden was acting more as an advertisement for Cranbourne, and Australia in general, as a tourist destination, than for the extraordinary flora of the country. So a missed opportunity, perhaps, but the Chelsea judges obviously liked the garden as they awarded it a Gold medal, and congratulations must go to those who designed and built it for this notable achievement at least.

The Australian Landscape at the British Museum

In contrast to my relative disappointment with the Australian Garden at Chelsea Flower Show, especially in regard to the plant content, I had no such reservations in respect of Kew's latest display in their 'Landscape' series in the entrance courtyard of the British Museum (see photos page 19). Those members who attended the AGM at Kew this year will have heard Steve Ruddy, the man responsible for the display, recounting the story behind its creation. The impression created by that talk, that a great deal of thought and effort went into the display, was totally confirmed when I visited the British Museum in mid-August. It is hard to imagine that a more spectacular temporary display of Australian plants has been staged anywhere in this country in living memory.

It is perhaps a little unfair to make too many comparisons with the Chelsea garden, as the raison d'etre for that was rather different to Kew's display. However, I do have to say that I thought the design of the latter did a much better job of evoking the atmosphere and appearance of Australian landscapes and plant communities. The range and maturity of plants used was most impressive, and the hard landscaping, especially the replicas of granite outcrops and pavements, superbly done. Some of the larger trees were suffering die-back at the tips, and a few plants were completely dead, a reflection presumably of the problems of watering in such a difficult site. In general, however, everything looked remarkably healthy, with many plants flowering.

Among those I particularly noted, either for their flowers or foliage, were *Xanthorrhoea glauca*, a fine example of a grass tree with a 6 foot high trunk; *Melaleuca cuticularis*, the Saltwater Paperbark with particularly attractive peeling bark, and white flowers; *Macrozamia riedlei*, a very fine specimen of this cycad; *Lagunaria patersonii*, flowering very freely; *Syzygium paniculatum*, a very beautuful foliage plant; and 15 foot high trees of *Casuarina cunninghamii*. Steve Ruddy and his team are to be congratulated on putting together such an excellent display; it was sad to see that relatively few of the many visitors to the Museum were bothering to look more closely at the plants, but those who did cannot fail to have been impressed by the scale and variety of what was achieved.

Rodger Elliott at the World Garden, Lullingstone

In the UK to help set up the RBG Melbourne garden at Chelsea Flower Show, Rodger Elliott was persuaded by Tom Hart Dyke to give a lecture on Australian plants during the annual plant fair in May. Rodger is one of Australia's leading experts on its native flora, and a pioneer with his wife Gwen of the movement to grow native plants in gardens there. Rodger's talk was necessarily pitched at a general audience, aiming to give just a flavour of the variety and beauty of Australian plants, but he still managed to pack in many exciting and unfamiliar plants, aided by superb pictures, many taken by Gwen.

Among those plants I noted were *Olearia astroloba*, the Marble Daisy Bush, with striking cornflower-blue flowers (for a photo see Pentachondra issue 46, page 9). Rare in the wild, although apparently well-suited to cultivation, the vernacular name recognises its habitat, Marble Gully in the East Gippsland area of Victoria. Its presence and rarity enabled conservationists to halt a quarry planned for the area to extract, yes, marble! Another blue flower, *Leschenaultia*, is notoriously difficult to grow, but Rodger recommended *Dampiera* as an equally brilliant blue that is much easier to cultivate (one for the seedlist, possibly?) And if it is scented foliage you want, Rodger said that *Backhousia citriodora*

has the most powerfully lemon-scented leaves of any plant he knew.

Rodger concluded by describing the Australian Garden at the Royal Botanic Garden Cranbourne (an outstation of the main RBG Melbourne) which was the inspiration for the Chelsea Garden. When Rodger answered a few questions from the audience, one useful tip I picked up was that the best advice for getting species of *Xanthorrhea* to survive is to give them little water!

❀❀❀❀❀❀❀❀❀❀❀❀❀❀

AUSTRALIAN RHODODENDRONS

Jeff Irons

There are over 900 rhododendron species. The genus is split into several subgenera, one of which is called Vireya. One of Vireya's characteristics is the presence of scales on the leaves, stems, flowers and fruits. The purpose of these scales is not known but a possible explanation is that they help to protect the plant from the strong solar radiation on the tropical mountains where they are found.

The first mention of an Australian rhododendron was when Baron von Mueller collected and named *Rhododendron lochae* on the Bellenden Ker range, inland from Cairns in Queensland. Nowadays the specific name, which commemorates Lady Loch, then wife of the Governor of Victoria and a patron of horticulture, is spelt *lochiae*. The first account of *R. lochiae* being cultivated was in the Gardeners' Chronicle in 1939, where it was reported as growing at Kew. In 1953 *Rhododendron lochiae* appeared in the catalogue of Basil Hodgkins, at his nursery in Essendon, Victoria. It quickly became popular and was used as a parent of many hybrids.

In the early 1990s it became apparent that two different plants were being grown and sold as *R. lochiae* and the botanist Lyn Craven discovered that the Hodgkin plant was new to science. To change its name would have caused much confusion in horticulture all round the world, so Craven created a new type species and called the von Mueller plant *R. notiale* (meaning from the south). Unfortunately this action did not meet with the approval of international botanists so it was renamed *R. viriosum*, while the von Mueller plant remained as *R. lochiae.*

Identification

When not in flower the two plants are indistinguishable but in bloom they are easily separated:

R. lochiae has a curved floral tube, with the stamens on one side. This indicates that it is pollinated by birds.

R. viriosum has a straight floral tube, with the stamens arranged in a circle (see photo page 20).

It is possible that further species remain to be discovered in the mountains of North Queensland.

Cultivation

In the wild these plants grow both as epiphytes and on the ground, on steep slopes, and in rich soil with much organic matter. They are subject to frequent heavy downpours of rain and the cool mountains on which they are found are often misty. Although growing in acid conditions, they have a high requirement for calcium.

I have found that they can be grown in leafmould and in a mixture of equal parts of coarse and fine bark. Calcium was added as baking powder (it contains acid calcium phosphate). Temperature is also important. Temperatures below 5°C result in dark spots on the leaves, which also lose their gloss. A winter minimum of 10°C is recommended. The compost must never be allowed to dry out, yet must be very well drained.

Seedlings bloom in their third year and for me that has been in August. However at the Tatton Park Flower Show *R. viriosum* has been shown in bloom in late July.



THE GENUS LIBERTIA

© Gary Dunlop

The genus *Libertia* was established by Anton Sprengel in 1824 when he reclassified *Renealmia paniculata* and *Renealmia pulchella* (R.Brown) together with *Sisyrinchium ixioides* (G.Forster)[1]. The genus, in the Iris family, was apparently named after Mademoiselle Libert de Malmedy, "*to whom the French Flora is indebted for a great number of new and interesting species*"[2]. The distribution of this genus reflects an early origin in the Jurassic period, before the break-up of Gondwana. It was separated from *Sisyrinchium* on account of the three inner tepals being much larger that the outer ones. The genus currently comprises 15 accepted species[3]. Seven occur in South America, six in Chile and one in both Columbia and Bolivia. Two occur in Australia, one of which, *L. pulchella* occurs in Tasmania, New South Wales and surprisingly the mountains of New Guinea, and eight occur in New Zealand. The recent botanical review of the genus will necessitate several name corrections for plants long established in cultivation.

The most commonly grown species in the British Isles and elsewhere has, however, been grown under a wrong name for over a hundred years, but not as a result of the recent changes in nomenclature. What has been grown widely under the name of the New Zealand species, *L. grandiflora*, is actually the variable Chilean species now correctly called *L. chilensis*. The mistake goes back to 1908 when the Kew botanist C.P.Raffill wrote a short piece on *L. grandiflora*, with an accompanying illustration for the Gardeners' Chronicle[4]. The initial comments and description in his article were correct for the true *L. grandiflora* including noting the close resemblance of *L.*

ixioides to it, but the photograph was of *L. chilensis*. The wrong name was thus attached, and has stuck to the Chilean species ever since. It is hardy and often self-seeds prodigiously, so it is not difficult to understand why it became so widely grown. In contrast the true New Zealand species is rare in cultivation and could easily be mistaken for *L. ixioides*. The influence of the Gardeners' Chronicle in its heyday was world wide as *L. chilensis* is grown under the wrong name in temperate parts of the USA and even in gardens in New Zealand.

The name *Libertia chilensis* was established in 1927[5] when Gunkel transferred *Choeradodia chilensis* (Molina) Herb. (originally *Strumeria chilensis* Molina) to *Libertia*. It has not been used for plants in cultivation before, partly because of the description being published in Spanish in a Chilean publication not readily available in the UK, but primarily because of the long standing mistake in the Gardeners' Chronicle.

The name *L. chilensis* now encompasses or replaces three species names that have been commonly used in cultivation, *L. elegans*, *L. formosa* and *L. procera*. The last name was never formally published and is thus not valid botanically, but it was consistently used for the largest form of this species, which flowers at up to about 1.8m tall with leaves almost the same length. The name *L. formosa* was used for the relatively compact form with foliage about 50cm and which flowers at about 90cm tall. The larger plant has the largest flowers, with many plants in cultivation as *L. grandiflora* probably being crosses between these two forms. Different forms of the species can have different shades of pale to dark brown bracts, which enclose the dense clusters of the white flowers, which individually only last for a day or so. Some forms have bronze shaded stems when exposed to the sun, rather than the usual green. There are also variations in the colour of the calyces, from green through light bronze to mahogany, and in the number of flowers in each flower cluster. One form in cultivation as *L. formosa* has more glaucous coloured leaves instead of the usual dull deep green. The larger forms of *L. chilensis* eventually form substantial clumps. I grow at least a dozen forms of this variable species and most have formed quite massive clumps in about fifteen years, as well as producing many hundreds of widely dispersed self-sown seedlings.

However the name *L. elegans* has been applied to a distinctly different species, known and recorded as a garden escape by the BSBI in a few locations in the west of Scotland,. This was the location where my plant originated from. The reclassification of *L. elegans* as *L. chilensis* may thus surprise some people, as the wrong name was not restricted to gardeners. Botanists have also long used it for the plant in cultivation, and it was most recently described by Clive Stace under the common name of the Lesser Chilean Iris[6]. What is normally, if not very widely,





Australian plants at Kew:

Rhodanthe (above) and *Anigozanthus* with *Ptilotus* (left).



APS members inspect Australian plants at Kew



The Australian Garden at Chelsea 2011

grown as *L. elegans* is noticeably different with an open flowering habit, with the individual flowers on long pedicels, grouped in umbellate clusters along the flowering stem, which themselves are usually on short side branches from the stem, rather than tight clusters of numerous flowers along the flowering stem, with an occasional side branch terminating in another cluster as with *L. chilensis*. The open branching habit of *L. elegans* hort. is actually similar to *L. ixioides* and *L. paniculata*.

The problem thus arises as to what is the Chilean species that has long been grown in the British Isles as *L. elegans*. The only plausible candidate is the recently described species *L. umbellata*[7] (see photo page 20), which had apparently been previously regarded in Chile as *L. ixioides* because of the similar branching habit of its flowering stems. Sprengel, in his original establishment of the genus, sowed the seeds of confusion by noting that the plant *Sisyrinchium ixioides* (G. Forst.) occurred in both Chile and New Zealand. The confusion was made worse by Gay[8] and subsequently Klatt[9] publishing descriptions of a Chilean species as *L. ixioides*, neither of which was valid botanically, and according to the World Checklist their descriptions both relate to *L. chilensis*[3]. A distinct characteristic of *L. umbellata* is that as well as clumping up it produces small satellite plants on short stolons, which *L. chilensis* does not. The name *L. umbellata* must have been informally used long before it was formally published as I obtained a plant under this name from the late Harold Read, who held the first National Collection of the genus, in 1990, though the plant turned out to be a form of *L. chilensis*.

A third Chilean species that has long been in cultivation has also been subject to a name correction, though it has taken almost fifty years to be adopted for cultivated plants in the British Isles. The name *L. caerulescens* was established in 1845 by Kunth & Bouché[10], but in 1953 Skottsberg[11] published a revision of the plant that had previously been discovered and published under the name *Sisyrinchium sessiliflorum* by Poeppig in 1833[12], which thus takes precedence and so *L. caerulescens* became a synonym. The plant long in cultivation as *L. caerulescens* has in my experience shorter broader leaves than that introduced more recently into cultivation as *L. sessiliflora* (see photo page 20), which has the merit of being much hardier than the earlier introduction, but curiously not as prone to self seed.

A fourth Chilean species *L. tricocca* has been in cultivation in the UK for some years but is not widely grown, despite being named and described in 1858[13]. It is not such a robust or vigorous plant as other species mentioned above, and is perhaps most easily distinguished by gardeners in that the anthers are white, rather than the more common yellow of other species, a characteristic shared with only one other species, *L. micrantha* from New Zealand.

Two further Chilean species were described along with *L. umbellata* for the first time in 2005 by Pierfelice Ravenna, who self publishes his botanical contributions in an irregular series of leaflets with the title Onira[7]. Both *L. falcata* and *L. insignis* are quite dwarf plants, particularly the former with leaves less than 28cm tall, and the latter only being slightly larger with leaves up to 35cm tall. They both seem to be relatively uncommon in central Chile, growing at low altitude or near the coast. Almost certainly neither are in cultivation in the British Isles, and probably not in Chile either, though they should be relatively hardy.

The final species from South America, *L. colombiana*, grows in both Colombia and Bolivia, and prior to 2005 it was considered to be two separate species, the second being *L. boliviana*. When the two species were found to be the same *L. boliviana* was thus established as a synonym for *L. colombiana*[14 & 3]. Again it is unlikely to be in cultivation, though some forms may well prove to be hardy as it grows at relatively high altitudes.

The two Australian species, *L. .paniculata* and *L. pulchella*, have not been subject to any further name changes and no other native libertias have been recorded. *L. paniculata* is or has been in cultivation in the British Isles but is not very hardy, which is regrettable as it probably has the largest flowers of the genus in Australasia. The leaves are up to 60cm long and the flowers occur in open clusters of up to six flowers, 15mm across on branched stems, which are usually shorter than the leaves. It occurs along much of the southern half of the eastern Australian seaboard and is widespread in rain forests and wet open forest on the coast and adjacent ranges from south-east Queensland to eastern Victoria.

In contrast *L. pulchella* (see photo page 21) is quite a dwarf plant with leaves about 20cm long, but reasonable sized flowers considering its diminutive size, again on branched stems about the same length of the leaves or slightly longer. It occurs in Tasmania and New South Wales, which share a significant number of species, but a disjunct population in the mountains of New Guinea is perhaps surprising. The form of *L. puchella* that I grow has proved to be quite hardy. I did briefly grow *L. paniculata*, but assuming it would not be very hardy I kept it in a pot inside, and my erratic watering regime proved to be incompatible with the survival of a plant that likes moist conditions. The two Australian species share the matt dark green foliage with their South American cousins. In contrast most New Zealand species have evolved relatively smooth almost glossy thicker leaves, and those species in cultivation in the UK have conspicuous central veins of paler and contrasting colour to that of the main body of the narrow leaves.

Only two New Zealand species are widely grown and fairly well known in the British Isles. *L.*

ixioides (see photo page 21) usually has a prominent central vein of a different colour, usually pale yellow or orange, to the main body of the leaf, and can be very variable in size and colouring, with the flower stems normally rather shorter than the foliage. It forms quite dense clumps. In recent years several forms, most of which were well within the normal range for the species, have been mass produced and marketed with fancy names to the wider plant growing public at suitably inflated prices. In contrast *L. peregrinans* (see photo page 22) has green orange foliage with an orange central vein which gets broader and lighter in colour when grown in full sun, and is markedly stoloniferous in habit. It is questionable whether the named cultivar is significantly different. *L. grandiflora* (see photo page 22) is similar to *L. ixioides* but with the flowers presented above the foliage.

New Zealand *Libertia* species were first reviewed by Lucy B. Moore in 1967[15]. Her review confirmed the status of four species, *L. ixioides, L. grandiflora, L. pulchella* and *L. peregrinans* and reduced *L. micrantha* to a synonym for *L. pulchella, L. macrocarpa* to a synonym for *L. ixioides* and *L. orbicularis* to a synonym for *L. grandiflora*. It also established that *L. ixioides* and *L. grandiflora* are very variable in size. The status of species in the genus was subsequently confirmed in Vol. 2 of the Flora of New Zealand[16].

More recent research[17] has established that *L. micrantha* is a valid species and not a synonym for *L. pulchella* despite being similar in appearance, and that *L. pulchella* is thus not native to New Zealand. It is relatively hardy and a form is in cultivation as *L.* 'Nelson Dwarf', which was introduced to the UK by Graham Hutchins of County Park Nursery. I grew it briefly many years ago, but as the leaves were only about 50mm long, the tiny clump succumbed in the open ground, almost certainly to drought.

This paper also established three new species, *L. cranwelliae, L. edgariae* and *L. mooriae* as well as a naturally occurring hybrid *L. ixioides* x *peregrinans*. It also reduced *L. tricolor* to synonymy with *L. ixioides.* It included distribution maps of the various species, which show that *L. ixioides, L. micrantha* and *L. peregrinans* are widely distributed on both the North and South Islands, though the latter occurs much less frequently. *L. grandiflora* occurs only in the North Island, predominantly in the northern half, but also near the southern tip. *L. cranwelliae* has a limited distribution at the Eastern Cape of the North Island, *L. edgariae* is limited to the southern tip of the North Island, whereas *L. mooriae* has a limited distribution to the north of the South Island and the south of the North Island. The natural hybrid *L. ixioides* x *peregrinans* has a limited habitat in the north-west of the South Island.

The distributions of these species gives a reasonable idea as to whether these plants would prove to be hardy in the UK. I currently grow one plant as *L. grandiflora*, presumably from the southern tip of the North Island, which survived the last two severe winters, though with the tops of many leaves killed. It has yet to flower so I cannot confirm its identity, thought the leaves are slightly broader and taller than most forms of *L. ixioides* that I grow. I did grow it in the past, but apart from a photograph of it in full bloom, I have no recollection as to what became of it. Both *L. edgariae* and *L. mooriae* should potentially be hardy in the British Isles, as should the natural hybrid.

I have grown one plant as Eastern Cape species for about 20 years, and it does seem to match the description of *L. cranwelliae*, being stoloniferous and with green leaves becoming yellow in sun, and bears a credible likeness to the illustration of the herbarium specimen in the taxonomic revision. In time the stoloniferous habit gave rise to a substantial clump which was neglected for years until it started to seriously die back, almost certainly by exhausting the little nutrition in the soil. I managed to rescue a small piece and in better conditions it is regaining some vigour. The tips of many of the leaves were killed in the winter, but it does seem implausible that a plant from the coast, so far north on the North Island, would survive the serious frosts and snow cover of the last two winters. However, the natural range of *Sophora tetraptera*, which I have always regarded as hardy, ranges from the East Cape at 37.5ºS to 40ºS so I may have underestimated the potential hardiness of plants on the North Island. Whilst it certainly flowered in the past, I have no clear recollection of the flowers, or more significantly the seed capsules which being large in *L. cranwelliae* would serve to confirm the plants identity.

Yet another species of *Libertia* in New Zealand was described as recently as 2010[18]. Perhaps, not surprisingly, it is a very rare species with limited habitat, and has already declined due to human-induced disturbance. *L. flaccidifolia* is similar to *L. grandiflora* but '*with flaccid leaves, with strongly scabrid margins, fully dehiscing capsules and orange seeds'*. It is certainly not in cultivation except possibly in botanical institutions in New Zealand to ensure its survival.

I have in the distant past grown one quite small plant under the invalid species name of *L. breunoides*, which again I obtained from the late Harold Read. Unfortunately, within a few years it was overwhelmed by larger relatives, so I cannot comment on its likely true identity, or the origin of the name. Suffice to say it must be one of the smaller species with, as far as I can remember, plain dull green leaves, which at least narrows the field.

There is only one known hybrid cultivar, *L.* 'Amazing Grace'(see photo page 22), which presumably arose in cultivation and which had

L. chilensis as one presumed parent, though *L. umbellata* may be more likely, with *L. ixioides* reputedly the other. I originally obtained it from Harold Read. The plant has relatively short leaves, so the Chilean parent must be of relatively small stature. The young leaves are the typical dull green of the Chilean species, but as they mature the central vein thickens up and turns yellow as the leaves pass maturity, thus indicating a New Zealand species is the other parent. The flower stems are thin, wiry and deep bronze in colour, similar to the flowering stems of *L. ixioides* except its stems tend to be green or pale bronze, and the small flowers are consistent with it, though a little larger.

I subsequently obtained another plant as a *Libertia* hybrid, from Daphne and Jonathon Shackleton, whilst they still looked after Jonathon's late father's renowned plant collection in the walled garden at Beechpark, south of Dublin. The two plants were very similar, and are either the same cultivar or a hybrid of similar parentage.

It was only when I went around looking at the many clumps of libertia distributed around the garden which arose as self sown seedlings that I realised that there were many hybrids between *L. chilensis* and *L. umbellata* that have arisen in the garden over a period of 15 years or more, despite most of the self sown seedlings being weeded out. Several have *L. umbellata* as the dominant parent, and they have its thin stems and multiple branching habit, but clusters of small flowers on short pedicels inherited from *L. chilensis,* though there are fewer flowers in each cluster. One such hybrid is more distinct than the others in having the flowers held well about the foliage, whereas both parents and most of the hybrids the flower stems only protrude partially about the leaves. The reverse hybrid tends to have the thicker stems and larger flowers, but with the multiple branching habit giving the flower spikes a more open and airy habit. One such habit has *L. procera* hort. as the parent, with large flowers and tall stems which currently extend beyond the foliage, but not by very much. One or two of the hybrids also have the longer pedicels, which present the flowers further apart from one another as they open out, rather than the usual dense clusters. I doubt there would be sufficient interest in the genus to warrant naming any more cultivars.

The cultivation of Libertias is easy and relatively trouble free apart from the size that the larger forms of *L. chilensis* reach, and the problem of their removal, together with the running habit of *L. peregrinans*. The individual tufts of leaves increase by short tough stolons, which make the clumps all but impossible to divide without digging up the complete clump first. This is no easy task with the larger forms of *L. chilensis* if they have formed large clumps. They are likely to prefer a neutral to acid soil, and do not seem to need a fertile soil. The Chilean species are likely to prefer cool and potentially humid conditions but

are drought tolerant, and will grow in shade, as will the Australian ones, though *L. paniculata* clearly requires warmer moist conditions and no serious frosts. All other species seem to be reliably hardy, as they were well tested during the last two winters. Most of the New Zealand species will grow happily in full sun, which may emphasise the colouring of their foliage. Most species can be readily grown from seed, though only *L. chilensis* seems to be a prolific at self-seeding. Division of clumps is possible, though usually only if the whole clump is lifted, and is best carried out in spring, as most if not all species produce new roots in spring. I have found in the past to my cost that autumn division and replanting of a particularly good form of *L. ixioides* 'Tricolor' proved fatal. Spring is also the time to move existing clumps of all species, though they may sulk for a while until they become fully re-established.

The range of *Libertia* species means that there is a suitable species for every size of garden. In large and informal gardens, the larger forms of *L. chilensis* could be used as a boundary plant in front of shrubberies so as to minimise the need for weeding, or as occasional specimens. In more typical sized gardens, the smaller forms of *L. chilensis* and *L. umbellata* can be used as trouble free filler plants with their displays of white flowers in late May into early June. The neater and more colourful forms of *L. ixioides* are more decorative, and are small enough for rock gardens, as is *L. pulchella*, and also flower at the transition between late spring and early summer. The smaller forms of *L. micrantha* are suitable for growing in a trough.

References:

1 Sprengel, A 1824: System vegetabilium Vol.1 p.127

2 Graham, R. 1834; Bot. Mag. tab 3294 (footnote)

3 Barker, C. & Govaerts, R. 2011: World Checklist of Selected Plant families. On-line, Kew website

4 Raffill, C.P. 1908: Libertia grandiflora. Gardeners' Chronicle series 3 Vol 93 p.2

5 Gunckel,1927: Revista Chileana Hist. Nat.Vol.31 p.87

6 Stace, C. 1997: New Flora of the British Isles 2nd ed. p.951 Cambridge University Press, Cambridge

7 Ravenna, P 2005: Onira Botanical Leaflets Vol.10 No.1 p.1-2

8 Gay 1830: Flora Chilensis Vol.6 p.31

9 von Martius, C.F.P. ed.1871: Flora Brasiliensis Vol.3 Part 1 p.530

10 Kunth & Bouché 1845: index seminum [Berlin] [9] and subsequently described in Linnea vol.19 p.382 in 1846.

11 Skottsberg, C.J.F. 1953: Nat.Hist. Juan Fermandez (Botany) Vol 2 Pt.6 p.778

12 Poeppig, E.F. 1833: Fragmentum: synopseos Planatarum ab auctore annis 1827-1829 in Chile lectarum: Dissertation botanica

13 Philippi, R.A.1888: Linnaea vol.31 p.63

14 Goldblatt, P. & Celis, M. 2005: Notes on *Libertia* Spreng. In South America. Sida Vol.21 pt.2 pp.105-112. NB In the private publication Ravenna's brief statement, at the end of his publication of three new

Chilean species, that the *L. boliviana* was identical to the previously published *L. colmbiana* and thus a synonym apparently predated this much more detailed paper by 2 months. When and to which botanical institutions copies were distributed is not recorded, except the copy received at Missouri Botanic Garden was on June 6th 2005
15 Moore, L.B. 1967: The New Zealand species of Libertia. Pp 255-75 N.Z. Journal of Botany.
16 Moore, L.B., Edgar, E. 1976: Flora of New Zealand Vol.2 pp92-5.
17 Blanchon, D.J., Murray, B.G. & Braggins, J.E.2002: A Taxonomic revision of Libertia (Iridaceae) in New Zealand. New Zealand J. of Botany. Vol.40 pp.437-456.
18 Blanchon, D.L. & Weaver, J.S. 2009: Libertia flaccidifolia (Iridaceae) a new species from Mt. Tamahunga, Northland New Zealand. New Zealand J of Botany Vol.47 pt 3 pp.317-324.

❀❀❀❀❀❀❀❀❀❀❀❀❀❀

EUCALYPTUS GUNNII: The pioneer Australian tree in Britain

© John Purse

In the decades following the European settlement of Australia, seed of numerous eucalyptus species was brought to Britain. Many young plants were grown in greenhouses and some flowered under these conditions; for example, *Eucalyptus macrocarpa* flowered at Kew for the first time in 1847[1], and was noted as 'very handsome'. However, they died at a taste of a British winter outdoors. With hindsight this is hardly surprising: the species and the climates from which they came were poorly described, and the seed of the vast majority would have been collected from areas having few or no frosts, close to the first European settlements. This changed with the recognition of *Eucalyptus gunnii*, and a tree of this species was the first Australian tree to be grown successfully outdoors in Britain. The result today is that *E. gunnii* is quite common as a specimen in parks and gardens throughout the Britain and Ireland. The trees are frequently long-lived and grow to a considerable size – far too large for the small suburban gardens where they are often found!

The first Australian tree grown outdoors in Britain

Eucalyptus gunnii had been informally recognised in the 1830s as a distinct species in Tasmania, particularly on account of the stem sap that could be harvested from its trunks in spring. This led to the common name 'Cider Tree' and latterly 'Cider Gum'. The remarkable Tasmanian botanist, Ronald Gunn, brought the species to the attention of Joseph Dalton Hooker during the latter's visit to Hobart in October 1840 on the outward voyage from Britain of the Antarctic expedition of HMS *Erebus* and HMS *Terror*. (Hooker was assistant to the surgeon on HMS *Erebus* and was the youngest member of the 128-man crew of the expedition). Hooker himself visited one of the stands of the Cider tree near Lake Echo, and

in 1844 formally described the species, naming it *Eucalyptus gunnii* in recognition of Ronald Gunn[2]. In a published extract of a letter accompanying Hooker's description, Gunn noted the exceptional tolerance of the species to the unusually severe winter conditions around Arthur's Lake in 1842[3]. Therefore Hooker would have been aware that this species had the potential to cope with the British climate.

Hooker brought seed of *E. gunnii* back to England, via Antarctica. It is not clear whether Hooker himself collected the seed from the stand at Lake Echo, or whether it was a sample given to him by Gunn. The expedition arrived back in England in September 1843, and the seed would doubtless have arrived at Kew soon after. Hooker's father, Sir William Jackson Hooker, was director of Kew at this time, and he maintained a long-standing correspondence with Ronald Gunn. One tree was planted outdoors at Kew shortly afterwards, presumably in 1845 or 1846. Despite having shoot damage in several severe winters, this tree survived temperatures below -18°C in 1860-61, and being transplanted some years later[4]. It lived until around 1908[5]. Thus it was the first Australian tree to be cultivated in the open air in England. Reportedly, it never flowered or achieved large dimensions, both of which are unusual features by the standards of subsequent plantings, and this may indicate that by chance it was an inbred individual having poor vigour. However, a precedent had been established, and it was not long before there was another try.

The Whittinghame Gum

Further seed was brought to Britain by Lord Robert Cecil (later Lord Salisbury, a British Prime Minister) as a result of his visit to Tasmania during his voyage around the world in 1851-53[6]. He passed this to his nephew, Arthur Balfour, the 1st Earl of Balfour (and later also a British Prime Minister), of Whittinghame Castle, East Lothian, near Edinburgh in Scotland. One tree was planted in the grounds of Whittinghame Castle in 1854 and proved to be very robust and long-lived; it was still there in 1957[7], when its height was 29m and its girth was 184cm, and it was finally blown down in 1963. This tree did not appear to be typical of the species, most notably because of its slightly urn-shaped flower buds and fruits. This led to some rather polarised discussion on its true identity[6,8-12], and it was given the attribution of *Eucalyptus whittinghamei*, and later *Eucalyptus whittinghamensis*.

This tree was particularly hardy, and it flowered and seeded freely. The gardener at Whittinghame, John Garrett, raised 'hundreds' of seedlings from it, and distributed these throughout Britain, starting in 1887[6]. These also proved notably hardy; a population of young trees planted at Kinloch Hourn in western Inverness-shire, Scotland in 1890 and 1891 was barely damaged by an extended period at -18°C in the winter of 1894-95[6]. These seedlings differed in morphology from the parent, and clearly resembled *E. gunnii*.





The Australian Landscape at the British Museum



Rhododendron viriosum



Libertia sessiliflorum



***Libertiaumbellata* flowers (*L. elegans* hort.)**



Libertia pulchella



Libertia ixioides



Libertia peregrinans



Libertia grandiflora

Libertia 'Amazing Grace'



They also were notably glaucous when young. As a result, the attribution given changed to *Eucalyptus gunnii* var. Whittinghamensis, and this attribution has been used until recently. It seems probable that the original tree was from one of the glaucous provenances of *E. gunnii* that occurs at higher elevations in Tasmania, and would probably today be categorised as *Eucalyptus gunnii* subsp. *divaricata* [13] (this subspecies can have slightly urn-shaped fruit). Four seedlings from the progeny of the original tree were planted at Whittinghame between 1891 and 1912[12], and at least one of these still exists, so the opportunity to re-examine the point remains.

Another Victorian introduction

A further introduction of seed was made by John Bateman of Brightlingsea, Essex, in the 1880s. Mr Bateman's parents, James and Maria, were noted gardeners, and established a famous garden and collection of exotic plants at Biddulph Grange, Staffordshire from 1840[14]. Their son evidently inherited his parents' interests, and applied them in various ways on his estate at Brightlingsea. The origin of his *E. gunnii* seed is unclear. Bateman left two differing comments on its source, the extreme south of Tasmania[15], and Negrete, Argentina[16]. Subsequent descriptions by others have ascribed the source to New Zealand[14]. An initial population of 60 seedlings was planted out in the autumn of 1887, and these flowered for the first time in 1892. Both seed and seedlings from this population were freely and widely distributed, both around Brightlingsea and throughout southern Britain. By 1902, some 900 trees had been planted around Brightlingsea, and more than 200 of these survived in 1963. Large trees still exist there today, though their age is unclear. Many of the large eucalyptus crowns in local shelterbelts prove on close inspection to be re-invigorated branches or to be from epicormic shoots, on trunks of trees that blew down decades ago but are still very much alive. A large specimen still in the churchyard of All Saints church (see photo page 31) is particularly intriguing, as it may be from one of the earliest plantings. In 1899 Mr Bateman referred to a tree from local seed planted in the churchyard, and commented: '*The best I have...has got his roots into a grave, whose tenant died of small-pox, and it enjoys the situation hugely...*'[15]. A photograph of a large *E. gunnii* in the churchyard was published in 1912[5]. The tree in the churchyard today has disrupted several undated graves that are clearly not at all recent.

The plantings around Brightlingsea have provided more evidence of the ability of *E. gunnii* to cope with severe winters in Britain. Mr Bateman himself noted that some of the trees were damaged by the severe winter of 1894-95. These trees lost a year's growth, but recovered fully[15]. A similar response was seen following the prolonged severe winter of 1962-63 (which froze the sea locally, and killed established *Cupressus macrocarpa* trees outright): the trees looked dead

until late May 1963, when new growth appeared throughout the crowns[17].

The experiences of trying to grow eucalypts in Britain and Ireland were reviewed in 1912 by Elwes and Henry in the sixth volume of their magisterial survey of trees. Their conclusions were somewhat pessimistic, though with hindsight one can see that taxonomic confusion made firm conclusions and recommendations difficult. After 1912 there is a long period with very few records of *E. gunnii* or any other eucalypts in Britain. One *E. gunnii* tree was planted in the grounds of Cobham Hall, Kent, by Australian soldiers as a commemoration of their stay there during World War One[7]. The house was used as a hospital and convalescent home for Australian troops at this time, probably because of other Australian connections dating back to the 1880s – not least as the original home of The Ashes! The tree has since been identified as *Eucalyptus archeri* (Alpine Cider Gum, a species first described in 1929), which is plausible, though distinguishing the two species outside their native habitats is not easy. There is no record of the seed origin, though one wonders if it was posted from Tasmania to a convalescing individual. The tree is still there, growing well, though it has evidently suffered storm damage to its trunk and limbs in the past.

Renewal of interest in the mid-20th century

After the Second World War, there were efforts to see what could be learned from the surviving eucalyptus plantings of the Victorian and Edwardian eras in the now-neglected estates[18]. The findings led to further seed imports and small-scale forestry plantings, usually with seed provenances that were selected as more likely to perform acceptably in Britain[19]. Interest in planting eucalypts as ornamental amenity trees was renewed around this time also, notably through the efforts of Dr Richard Barnard of Bovey Tracey, Devon, who conducted his own trials from the mid-1950s and established a specialist nursery[20], and the plantsman and nursery owner Sir Harold Hillier. *E. gunnii* again proved to be one of the more reliably successful species in both forestry trials and amenity plantings, particularly away from the milder coasts. As late as 1974 *E. gunnii* was noted as '*infrequent*' in gardens in Britain[21], but since then it has become quite common, and young plants are offered for sale in almost every garden centre in the country.

The Forestry Commission undertook a comprehensive series of trials with eucalypts in the early 1980s, with strong emphasis on evaluating different provenances and seed sources of *E. gunnii* . Early survival in the trials was rather poor, due to a combination of poor establishment conditions and a series of exceptionally cold winters between 1980 and 1987[22]. The trials were abandoned in 1987, but the surviving trees were allowed to grow. Re-assessments of these trials since 2001 have

shown that *E. gunnii* has given very respectable yields on relatively short rotations[23], but that tree form under plantation conditions is generally very poor. The results of these trials have led to renewed interest in growing other hardy eucalyptus species having better form and yield for fuelwood production.

Starting in the 1970s, *E. gunnii* has been grown at various locations as stooled plants to provide cut foliage for florists. This industry has developed significantly since then, notably in Ireland but also in the UK[24]. More recently, the species has fallen from favour for this sector, due to more vigorous species with more distinctive juvenile foliage such as *E. glaucescens* and *E. parvula* now being preferred.

Until 2000, most of the *E. gunnii* seed used in Britain was still imported from Australia. Despite opportunities to collect seed from trees in the UK, as the Victorians had done, only small amounts of such seed appear to have been collected, for example by Richard Barnard. With the closure of the Tasmanian natural populations of *E. gunnii* to commercial seed collection in the 1990s, virtually all the seed used in Britain today comes from stands managed for seed production in New Zealand.

Note on sources:
Many of the events from the 19th century cited in this article are reported in different publications to have occurred in different years. I have used my judgement in selecting and reporting the most probable years of their occurrence. Many of the early publications contain much interesting detail, including engravings, photographs and anecdotes. However, the taxonomic classifications used then differ considerably from those current today. I have tried either to distinguish or to avoid using data from species that are no longer regarded as *E. gunnii*. Almost all the key people and places mentioned are described in more detail in Wikipedia and on other pages on the web.

References

1 Note in The Gardeners' Chronicle (1848), p159

2 Hooker, J. D. Note on the Cider Tree. London J. Bot (1844), 3, 496-501. Available at: http://www.biodiversitylibrary.org/item/6314#page/500/mode/1up

3 Gunn, R. Extract of a letter from Ronald Gunn Esq. Van Diemen's Land. London J. Bot. (1844), 3, 485-496. Available at: http://www.biodiversitylibrary.org/item/6314#page/489/mode/1up

4 Editorial: Gum Trees. The Gardeners' Chronicle (1887), 2, 784-785 and Fig. 150, p781

5 *Eucalyptus gunnii*, Cider Gum. The Trees of Great Britain and Ireland. Elwes, H. J. and Henry, A. Edinburgh, privately printed, (1912), 6, 1638-1642 and Plate 362

6 *Eucalyptus whittinghamensis*. The Trees of Great Britain and Ireland. Elwes, H. J. and Henry, A. Edinburgh, privately printed (1912), 6, 1642-1644 and Plates 363 and 365

7 Champion Trees of Britain and Ireland. Johnson, O. (ed.) Whittet Books, Stowmarket (2003), 53-55

8 Editorial: *Eucalyptus urnigera*. The Gardeners' Chronicle (1888), 1, 460-461

9 Letter from D. Landsborough. The Gardeners' Chronicle (1888), 1, 595
10 Editorial: Hardy Eucalypti in India and Elsewhere. The Gardeners' Chronicle (1888), 1, 798-799 and Fig 110, p802
11 Letter from Robert Birkbeck. The Gardeners' Chronicle (1899), 1, p84
12 Letter from W. A. Cook. The Gardeners' Chronicle (1923), 2, p352
13 Eucalypts of Victoria and Tasmania. Nicolle, D. Bloomings Books, Melbourne (2006), 98-99
14 http://www.cinqueportliberty.co.uk/johnbateman.htm
15 Letter from J. Bateman. The Gardeners' Chronicle (1899), 1, 202-203
16 Letter from J. Bateman. The Garden (1902), 61, p110
17 Venison, H. A famous Essex eucalypt collection. Gardeners Chronicle Gardening Illustrated, 23rd November 1963, pp 370-371 and 376
18 Martin, D. Eucalyptus in the British Isles. Australian Forestry (1948), 12, 63-74
19 Forestry Commission Bulletin No. 30. Exotic Forest Trees in Great Britain. HMSO London (1957), 147-153
20 Barnard, R. C. An Introduction to some garden eucalypts Part III. J. Roy. Hort. Soc. (1966), 91, 293-304
21 A field guide to the trees of Britain and Northern Europe. Mitchell, A. Collins, London, 1st edition (1974), p367
22 Evans, J. A re-assessment of cold-hardy eucalypts in Great Britain. Forestry (1986), 59, 224-242
23 Bennett, C. J. and Leslie, A. D. Assessment of a *Eucalyptus* provenance trial at Thetford and implications for Eucalyptus as a biomass crop in lowland Britain. Quart. J. For. (2003), 97, 257-264
24 Forrest, M. A valuable tree- by gum! Biologist (2000), 47, 139-142

EUCALYPTUS GUNNII IN NEW ZEALAND

Graham and Heather Milligan

Here in the deep south of New Zealand our main income is derived from the collection and sale of Eucalyptus seed. Our enterprise (milliganseeds.co.nz) was instigated by a request in 1983 for *E. gunnii* seed from a NSW based tree seed merchant who had heard *E. gunnii* grew well in NZ and, quite rightly, assumed there were scattered populations of this Tasmanian species here. We have over the last 28 years converted much of our property into Eucalypt seed orchards and have around 100 species on site.

E. gunnii has been planted in southern NZ for probably 150 years or more and there are many very large trees in our area. Although I now regard many of these trees being closer affiliated to *E. archerii*, our experience with collection of both species in Tasmania and introducing them to our patch have led me to believe they are so similar that they probably don't deserve separation except in the case of *E. gunnii* ssp. *divaricarta* from Shannon Lagoon

near Mienna in the Central Highlands of Tasmania. This subspecies is quite distinct in its divaricating branching habit, distinct blue colouration and much smaller leaves, different flowering time with smaller capsules, plus other differences.

Although there are many other populations of *E. gunnii* adjacent to Shannon Lagoon, they tend to gradually merge into what could be regarded as *E. archerii*. The *E. archerii* we have collected from Ben Lomond has little physical separation from *E. gunnii* in all phases of growth. There is a far greater physical variation found within other species, for example *E. perriniana, E. urnigera, E. coccifera, E. pauciflora* ssp. *pauciflora* and many others.

E. archerii is described as growing at higher altitudes than *E. gunnii* and because of this it is erroneously assumed as the more frost hardy. We have found this to be not true, with *E. gunnii* and its ability to grow on frost flats much more frost hardy. A closely allied species, *E. morrisbyi*, which occurs at near sea level around Hobart, is also very frost tolerant, probably retaining its hardiness when the species was isolated from the *E. gunnii* complex during the last Ice Age.

We currently harvest an average around 40kg of *E. gunnii* seed from our seed orchard with 1kg of seed producing 300,000 seedlings. It is the preferred species worldwide for the cut foliage trade. As seed production of *E. gunnii* in Tasmania is at worst non-existent and at best erratic, here we can produce consistent and often copious crops annually. One thing we have learnt from the foliage t rade is that the grower wants each stem to be exactly the same in form and colour and that mixing genetics in a seed orchard fails to achieve this. Our next seed orchard will be established from a much narrower genetic base, contrary to that in a seed orchard of eucalypts for timber production where vigour for growth can be enhanced by utilising within-species genetic diversity.

Thanks to John Purse for obtaining permission to reprint this article, first published in issue No. 53 of the ASGAP Eucalyptus Study Group Newsletter.



NOTES FROM KILRAVOCK

Phemie Rose

It is July in County Cork (Eire) and some plants are still re-appearing after the harsh winter. I had several plants of *Anigozanthos flavidus* grown from APS seed. All those planted on a sunny well-drained bank died but the sole survivor, planted in a damp shady spot, is coming back strongly! Four *Astelia* 'Silver Spear' survived but one in full sun and well drained soil died. *Billardia longiflora* flowered this year and now has a few green berries.

Cordylines behaved most oddly. Of the two *Cordyline australis* one is perfectly healthy still and the other has yellowing leaves and

new shoots coming up at the base. *C. australis* 'Peko' is doing exactly the same thing. *C. obtecta* 'Green Goddess', which was a large many-trunked specimen, lost all its leaves so it was cut back and is only now producing new shoots at the base. *C. banksii* was damaged but never lost all its leaves and now has some new ones. *C. kaspar* after losing all its leaves is now shooting from the base as are *C.* 'Sunrise', *C. australis* 'Coffee Cream', *C. australis* 'Albertii' and *C. australis* 'Ti tawhiti'. *C. indivisa* seemed completely dead so we bought another one and then only yesterday I saw a new shoot appearing from the original plant.

Cortaderia richardii looks as if there had never been any frost or snow, absolutely pristine. Of the two Australian restios that I have planted *Tremulina tremula* is pristine. *Baloskion tetraphyllum* has a lot of brown leaves but lots of new ones coming up. Of the tree ferns only the specimens of *Dicksonia antarctica* have survived. Even though they were well wrapped all the Cyatheas died. *Pseudopanax ferox* and *P. crassifolius* are still alive. *P. laetus* is still losing leaves but there is lots of new growth. *Pseudowintera colorata* had leaves which turned red with the cold, but it has survived. *Hoheria sextylosa* got a bit burned but survived. *Dianella tasmanica was* badly damaged but is still alive.

Plants doing well are noted in the box but I am not going to list all the plants that have died. It is far too depressing. I will still keep on growing Australasian plants from seed but will be a bit more cautious about what I grow and where I plant it. After all, you have to be an optimist to be a gardener!

Surviving well at Kilravock

Stylidium gramnifolium: survived and flowered well (photo page 31).
Griselina littoralis (which we use as a shelter belt): completely undamaged.
Diplarrhena moraea: produced its delicate white flowers as usual.
Pittosporums: *P. bicolor, P. tenuifolium*, and *P. tenuifolium* cultivars 'Tom Thumb', 'Abbotsbury Gold' and 'Atropurpureum' all undamaged
Hebes: 'Bowles Hybrid', 'Mrs Winder', 'Kirkii' and *H. albicans* all survived
Grevillea rosmarinifolia and *G.* 'Canberra Gem': very hardy.
Lomatia myricoides: looking very good.
Olearias: *O. macrodonta, O.* x *haastii, O. nummularifolia* and *O. virgata* are undamaged.
Myosotidium hortensia: survived without protection.
Kunzea ericoides: another very hardy plant.
Coprosma 'Beatson's Gold': very hardy.
Corokia virgata: very hardy
Orthrosanthus multiflorus: flowered as usual.

LETTER FROM SHEFFIELD

George Smith

Just a line or two to share my trials and tribulations following the very

bad winter we had last year. I live on the very boundary of Sheffield on the south east side. My garden faces south and we live at the top of a hill, so we do get a lot of wind. Our soil is well worked with a clay subsoil. Planting is mixed; that is, trees, shrubs, herbaceous plants and vegetables. It is minimum maintenance as I can't do as I would like.

The following is a short list of plants lost and those regrowing from the ground.
Acacia dealbata: 20ft tall , lost. Selfsown seedlings found this summer.
Callistemon pallidus: rejuvenating from the base.
Callistemon citrinus 'Splendens': rejuvenating from base.
Grevillea rosmarinifolia: a large bush was lost however I had rooted cuttings year before.
Eucalytus gunnii: badly affected and had to be pollarded, now regrowing.

This year I have purchased numerous plants and will grow them in containers for a year to see how they do before planting out.

❀❀❀❀❀❀❀❀❀❀❀❀❀❀

AND HIS EPITAPH SHALL SAY: 'He used to grow Australasian plants'!

Graham Sumner

To think that the extreme cold thrown at us during early January 2010 was the end of the matter was naïve in the extreme, especially for this retired climate scientist. I should have known better. The trouble with gardeners is that we're always pushing everything to the limits, taking chances, hoping against hope, and I am no exception. But, hey, I'd been growing Australian and New Zealand plants in my back garden not a stone's throw from the harbour and just a few hundred metres from the beach, for more than 20 years! It wouldn't happen for a second winter in succession, would it? Ha!

Powerlessly and disbelievingly Fran and I watched the BBC TV news whilst holidaying in Lanzarote last November and early December. Everything seemed to be hitting eastern England and Scotland with little mention of western Wales. We had a rude awakening on our return! Once back in Britain we travelled from Birmingham Airport by train following the heavy overnight snowfall which fell in the Welsh hills overnight on the 16th/17th December. The train was on time arriving at Aberystwyth, but buses? There were none!

Snow lay frozen on the ground right through Christmas. It had been -8˚C in our absence, but we were not prepared for the -12˚C at 10 am on Christmas morning, nor was what was left of the garden after the previous winter! When the thaw came, rapidly, just after Christmas, the harbour exit to the sea was almost dammed by thick ice flows washed down river by the snow melt. That was the winter of course, no more extreme cold came, but the spring regrowth was

very slow, even for more the usual garden plants.

As for the Australasians, the mature cordyline clump seen off in January 2010, but which had thrown up suckers during the following summer, was very sad indeed. Likewise, nearly all the callistemon which had either survived the previous winter (*C. linearis*) or been cut to the ground and regenerated from their bases (*C. rigidus* and *C. citrinus*): all eventually turned brown by mid-spring. Of the genus only two examples survived, both *C. viridflorus*, and these are still (late September) very sickly specimens: no flowers this year, not even putative buds, just a little weak leaf growth. Worst of all, our favourite eucalyptus (indeed the only one remaining in the garden), a 6 metre tall *Eucalyptus archeri*, finally gave up the ghost, and was chopped down by our friendly local garden handyman from La Rochelle in July. There has been no lignotuber growth at all, either before the chop or afterwards. It, too, had quite clearly suffered in the previous winter.

Of the few *Libertia grandiflora* to have survived to flower weakly in the summer of 2010, only one produced a single flower stem this summer, although a very few have bravely thrown up new leaf growth. More heart-breaking still, we had a small *Hoheria lyallii* near the house which blossomed strikingly early every summer. This managed to produce a few new shoots on one of its main stems, but it was no match for the local blue tits and sparrows who, taking the plant's common name, Mountain Lacebark, too literally, were obviously intent on stripping the bark to make lace curtains for their nests! An equally felt loss was our *Pittosporum crassifolium* which had soldiered on, blossoming beautifully following the 2010 winter, but had progressively died back in the late summer of 2010 after flowering, obviously in its death throes. December 2010 finally finished it off.

The only Australian plants which sailed through were a *Eucryphia lucida*, which gave a magnificent show on flowers in August; *Prosthanthera cuneata*, a small shrub planted only during the previous summer; some *Leptospermum lanigerum* seedlings, grown from my own seed collected in late 2009 (the parent plants, all two metres of them, also perished last December); and a *Podocarpus alpinus*.

Others, which were very severely cut back last December have made a brave attempt at recovery however, and better than was generally managed during the summer of 2010. I have already mentioned the cordyline clump. At the time of writing (late September) this has one very strong basal shoot 40 cm tall, plus a dozen other smaller ones, all looking similarly robust. An *Olearia macrodonta* and many *Callistemon linearis* have also revived well: the latter I cut back to near ground level and many, strong basal shoots emerged from June onwards .



The large *Eucalyptus gunnii* in the churchyard of All Saints church at Brightlingsea, Essex, England in May 2010.



Stylidium graminifolium **flowering at Kilravock on 11 July 2011**





Aciphyllas and celmisias (top) and *Telopea* 'Burgundy' (below) at Kerrachar Gardens

Plant losses during the winter of 2010/11, Aberaeron, Wales

Lost 2011 but which survived winter 2009/10

Callistemon citrinus
Eucryphia milliganii
Leptospermum lanigerum
Corokia cotoneaster
Drimys lanceolata
Eucalyptus archeri
Pittosporum crassifolium
Olearia x *haastii*

Cut back by winter 2010/11, but regenerated during the summer

Acaena microphylla: from early April
Acaena novae-zealandii: from early April
Cordyline australis: new 2010 growth killed, March regrowth (1 shoot) then numerous shoots from roots July onwards
Hoheria lyallii: from late May, but very weak and with no new branch development - sparrows and blue tits did not help!
Libertia grandiflora: from May; most clumps did not regenerate but lots of new seedlings all over the garden.
Olearia macrodonta
Callistemon linearis: from June

Survivors 2011

Callistemon viridiflorus: 2 out of 3 plants survived. Sudden leaf browning occurred April after appearing OK
Eucryphia lucida: some browning at leaf tips - great blossom!
Prostanthera cuneata: raring to go!
Leptospermum lanigerum: small home grown seedlings – local progeny
Podocarpus alpinus: cold, what cold?!

There are some indications as of late September that the coming winter could also be colder than normal. Predictions drawn from numerous sources ('ensemble forecasts' – see www.metoffice.gov.uk/research/climate/seasonal-to-decadal/gpc-outlooks/ens-mean) suggest that the westerly circulation in the north Atlantic, which normally assures us of a mild winter climate, will once more be weaker than is usual for the three winter months (December-February). This happened last November and December and allowed the incursion and longevity of the very cold northerlies we experienced. Met Office probability maps at the time of writing indicate a greater likelihood than is usual of colder conditions for the south of the UK, and a lesser probability of warmer than average conditions (see www.metoffice.gov.uk/research/climate/seasonal-to-decadal/gpc-outlooks/glob-seas-prob). The maps are revised every month, with increasing reliability as winter approaches. We shall see. Another cold winter will see off any which have suffered in previous winters, but later revived, and we may be optimistic that what has survived the last two winters will survive another of similar severity.

So, the flavour of our garden has changed almost totally in the last two years. It is, of course, a lot more open, which certainly pleases my wife, and it has been amazing what has sprung up apparently from nowhere. Unfortunately, apart from dozens of *Libertia grandiflora* seedlings

which appeared from July onwards, none of these surprises were Australasian. Perhaps it's a sign. Our house is now on the market as we plan to move to near our daughter's family in south Oxfordshire: even colder in the winter, but sunnier, and with much warmer summer days. A new challenge awaits us! 'Nice harbour-side Georgian house for sale. Unexpectedly nasty microclimate….'!

❀❀❀❀❀❀❀❀❀❀❀❀❀❀

FAREWELL TO KERRACHAR GARDENS

Peter Kohn

When we first planned the creation of the garden at Kerrachar we were advised by the then Head Gardener at Inverewe (the late Clive Murray) that plants from the Southern Hemisphere thrived on the mild west coast of the far north of Scotland and a series of mild winters encouraged us to be increasingly adventurous with ever more tender plants. By 2009 we had many Australasian plants thriving alongside others from South Africa and South America. The next two winters took their toll and when we finally left Kerrachar in September 2010 we had already lost a number of tender subjects, not so much because of extremes of temperature (-3.5ºC was our lowest temperature), but probably because of late cold spells after plants had come back into growth.

In late May we made a brief return to Kerrachar and had the chance to check out the effects of last winter. A max/min thermometer left behind showed that at some point during the winter of 2010/11 the temperature had dropped to -6ºC, lower than we had ever experienced whilst living there, and there had been some really surprising losses. One particular surprise was that many hebes had succumbed. *Hebe* x *francisciana* 'Blue Gem' is widely grown on the west coast . It stands up to salt-laden winds well but many plants had been lost around the area having thrived for decades. We had never worried about hebes but many had gone or were badly damaged, even some of the *H. elliptica* in our Darwin Garden, but the huge plant of *H.* 'John Collier' (obtained from Garden Cottage Nursery) was totally unscathed.

We had come to believe that *Acacia verticillata* is really tough. It was totally unscathed in previous winters, apart from losing the odd branch in severe gales, but it looked pretty sorry this May, whilst *A. melanoxylon* was finally lost. Over the years we tried several grevilleas with mixed success. Our 'Canberra Gem' did well until it was blown out of the ground. On the Atlantic seaboard winter gales are common and this was a repeated problem with evergreen shrubs in our soft peaty soil. *G. rosmarinifolia* and *G. juniperina* 'Pink Lady' remain fine but we lost *G. lanigera* 'Mount Tamboritha' a long time ago.

We had built up a reasonable collection of aciphyllas which were grown near the house alongside other New Zealanders, especially celmisias (see photo page 32). In a garden which concentrated on herbaceous perennials it was great to have one bed which looked much the same throughout the year. (Not strictly true when the white daisy flowers appear on the celmisias and occasional bizarre flower spike rears up on an aciphylla). This year we lost aciphyllas for the first time, notably *A. scott-thompsonii* and *A. aurea* though *A. dieffenbachia* and *A. crosby-smithii* were untouched.

Among other Australasians, our callistemons looked a bit singed as did most of the surviving leptospermums. Hardiness among the species in the exposed Darwin Garden was rather limited though *Leptospermum grandiflorum* has proved completely hardy and was untouched. Over time we had already lost most of the correas but *C. lawrenceana* is still thriving. On the other hand, all our ozothamnus proved great survivors.

Looking back at photographs taken in earlier years it is sad to see how many plants made promising starts in years with mild winters only to be lost in even modestly hard years. *Clianthus puniceus* was luxuriant for a while and even flowered twice in one season but has now succumbed. One of Jeff Irons' ghastly grevilleas, 'Robyn Gordon' (see Pentachondra issue 46, page 38), survived its first mild winter and was magnificent in flower but was lost in 2009. It was in the protea bed which suffered badly in 2010/11. Only *Banksia marginata* was unscathed, although damage to *Telopea* 'Burgundy'was minor and it was ready to flower again this year (see photo page 32). One of our South African *Protea subvestita* was also damaged but still ready to flower though another plant from a different source was lost, as were *Banksia paludosa* and *B. marginata*.

Elsewhere in the garden a disappointing loss was the previously thriving *Metrosideros excelsa*. As a coastal plant we had great hopes for it but last winter it was so severely burned off on the northwest side that it had to go: this was probably more the result of wind chill than salt damage.

Among the herbaceous New Zealanders the last of *Ranunculus lyallii* was lost whilst the South African *R. baueri* nearby was fine. All the ourisias are still doing well with *O. crosbyi* rampaging over its neighbours and flowering profusely. All our chionochloas (*C. conspicua*, *C. flavicans* and *C. rubra*) in the garden were in fine shape but only *C. rubra* really thrives in the exposure and poor soil of the Darwin Garden. Surprisingly our myosotidiums seem to have done better than those at Inverewe.

Leaving so many wonderful plants behind has been a real wrench. The new owners are not gardeners and probably will not have the time to maintain more than a fraction of the ground we

cultivated so the gardens will probably return to nature quite quickly although the Darwin Garden shrubs are sufficiently well established now to maintain themselves for some years. It was a great joy to welcome so many visitors over the years including a number of APS members, and we especially thank Tim Darrington who sent us a number of plants to try.



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

BOOK REVIEW: Champion Trees of Britain and Ireland

Jeremy Spon

This book, written by Owen Johnson and recently published by the Tree Register of The British Isles and RBG Kew, might not seem like an obvious candidate for review or recommendation in Pentachondra, but in fact it is a mine of useful information for anyone interested in Australasian plants. It is also indispensable for anyone with a wider interest in trees and shrubs. The Tree Register was set up by the late Alan Mitchell to collect measurements of notable trees, and this new book does provide a great deal of information about the statistics gathered over the years. But it is much more than this. There are two main sections. The first, described as a 'Tree Flora', lists every species of tree-size grown outdoors anywhere in Britain and Ireland, with measurements and locations of

notable specimens (not just champions). The second section is a gazetteer listing places with notable collections of trees, or significant single specimens.
At first sight this might all seem rather dry, or even to smack of train-spotting! But in fact it does two very valuable things. Firstly, it gives a very thorough survey of what is actually being grown outdoors in the British Isles, and which species thrive in which parts of the country. Secondly, it gives a very good idea of where to see all kinds of trees, and which gardens, parks and public spaces are worth visiting. And for APS members, the key thing is that the coverage of Australasian plants is excellent. Many acacias are mentioned, and the list of eucalyptus is extraordinary (I believe a lot of the information about the latter has been provided by APS member John Purse.) Many other Australasian genera also feature, and although it is clear that living around the Southern and Western fringes of Britain, or in Ireland, gives the best opportunities for growing our favourite plants, there is huge encouragement here for all members to keep experimenting.

The book is very well written, with comments on genera and species being brief but perceptive, and it is well illustrated. Owen Johnson is to be congratulated on producing such a fascinating book, one which I can wholeheartedly recommend to members.

Illustration acknowledgements

Judy Clark: pages 9 (top picture) and 20 (top picture)
Gary Dunlop: pages 20 (lower pictures), 21 and 22.
Lindsay Hobbs: pages 9 (lower picture), 10 (top picture) and back cover
Jeff Irons: front cover
Peter Kohn: page 32
John Purse: page 31 (top picture)
Phemie Rose: page 31 (lower picture)
Jeremy Spon: pages 10 (lower picture) and 19

The Australasian Plant Society

Minutes of the Annual General Meeting 2011
Held at Royal Botanic Gardens Kew on 2nd July

Members Present

Keith Larkin: Chairman, Acting Treasurer
Judy Clark: Newsletter Editor
Dennis Blundell
John Purse
Jeremy Spon: Secretary
Amanda Kershaw
Stephen Wood
Nick Hobbs

1. Apologies for absence

Apologies had been received from Jeff Irons, Tony Entwistle, David Ware, Jeff Layman, Tim Darrington, John Warren and Roger and Kathleen

Longbottom. The Chairman reported that in addition to sending his apologies, Jeff Irons had said he wished to resign as President, as he did not expect to be able to attend any future meetings. It was agreed to respect Jeff's wishes, and to reluctantly accept his resignation. There was some debate as to whether a replacement should be sought, and the consensus was that someone with a high public profile might help promote the Society and encourage new members to join. Various names were suggested, and the Secretary agreed to investigate further as to whether any would be willing to take on the post.

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

The Secretary reported that he had dealt with a few membership enquiries during the year, and a few miscellaneous enquiries about Australian plants. He said that credit should be given to member Graham Blunt of Plantbase Nursery who had provided the initial contact with Steve Ruddy which had resulted in the AGM being held at Kew.

5. Treasurer's report.

The Chairman had been acting as Treasurer since the unexpected death of Aubrey Wood. Keith paid tribute to Aubrey's generosity in taking on the job of Treasurer, saying that he had not realised quite how old Aubrey was (79 at the time of his death.) He observed that having to move house, taking his nursery business with him, had put considerable strain on Aubrey, and this had not made it any easier for him to cope with the job of Treasurer. Problems with membership payments, in particular standing orders, had made Keith's task in taking over more difficult, and as a result it had not been possible to produce accounts for 2010 to present to the meeting. However, he reported that the financial situation was still satisfactory, with the Society having quite significant reserves. The problems with subscriptions included wrong or duplicate payments, and inadequately identified standing orders. Keith made two suggestions to address some of these problems. Firstly, renewal reminders should only be sent (with the December Pentachondra) to those members not paying by standing order. The Newsletter Editor said this should be possible, and would aim to do this next December. Keith also raised the possibility of ceasing to accept standing order payments. However, after some discussion, it was agreed to persevere with them for now, as the benefits in terms of retaining members seemed to outweigh the problems caused.

Of more concern was the continuing decline in membership. So far this year, only 114 members had actually paid their subscriptions, compared to 139 at the same time last year. This was despite reminder letters having been sent,

and ex-members being included on the address list for e-mailings. Keith speculated that possible reasons for non-renewal might include cost (given the current difficult economic climate) or loss of plants in the recent severe winters. He felt that the benefits provided to members, in the form of Pentachondra, meetings and the seed-list, were all excellent, and it was difficult to see what else could be done to retain members. The only suggestion that had been received from members was for larger or more frequent Pentachondras, and this was not really practical, either in terms of the Editor's time, or the supply of articles.

Recruitment of new members, and advertising, were discussed. It was agreed that it would be beneficial to persevere with the membership leaflets, and placing some at The World Garden at Lullingstone would be looked into by the Secretary and Newsletter Editor, together with some sort of display material, based on A4 laminated sheets.

Various possible future options for the Society were raised by the Chairman and briefly discussed, but without any conclusions being reached. He also asked members to suggest possible lecturers for meetings of a different format to the current garden visits.

6. Newsletter Editor's report.

Judy noted that printing costs for Pentachondra had remained the same, but postage had risen again. She had been trying to progress the archive of back issues, but was still missing the earlier numbers. She would contact Tony Entwistle and Pat Anderson to see if they had any older copies (Jeff Irons had unfortunately thrown away his copies.)

Judy asked if there might be any interest in a forum on the website, but Keith felt it would be difficult to sustain for any period of time - his experience of similar societies to ours suggested that forums tended to run out of steam after a few months, even if enough active members could be found to get one started in the first place.

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 Secretary had heard from Richard Christmas, so no report was available. However Keith did report that most members whose cheques for 2010 seed orders had not been banked had now paid again, so the loss on last years seed distribution was not too large. It was generally felt that a slight subsidy of the distribution each year was acceptable.

The question of a cut-off date for seed orders was debated, and Keith said he would discuss this further with Richard. We would need to balance the need to give members a reasonable time to order seed against the potential extra inconvenience for Richard created by keeping the seeds available for longer. It was felt that Richard's initial suggestion of a cut-off of 30th June was a bit

early, but that if seed was sent out after the end of July it would be too late to sow it that year.

Richard was thanked for all his hard work in again making the seed distribution a success.

8. New Committee Structure.

The Chairman outlined the proposed new committee structure, and the officers' responsibilities. The positions of Chairman, Newsletter Editor and Seed-list Manager would remain the same. The Treasurer would also act as Membership Secretary, and prepare the AGM Agenda and Minutes. There would be a Meetings Organiser, and a Contact for General Enquiries, the latter function being carried out for the time being by the Newsletter Editor. There would no longer be a separate Secretary as such. The Chairman proposed the adoption of this new structure; this was seconded by Stephen Wood, and approved unanimously.

9. Election of officers.

The Chairman (Keith Larkin), Newsletter Editor (Judy Clark) and Seed-List Manager (Richard Christmas) were all willing to stand again; Jeremy Spon had agreed to take on the job of Treasurer, and Amanda Kershaw to be Meetings Organiser. The Chairman proposed that all these officers be elected en bloc; this was seconded by Jeremy Spon, and approved unanimously.

10. Next Year's AGM and other meetings.

Amanda Kershaw suggested Devon or Cornwall as possible areas to hold next years AGM, and it was agreed she should investigate possible locations, as well as somewhere in the north, either as an alternative AGM venue, or for a separate Northern meeting.

11. Any other business.

The question of new members joining during the year was briefly discussed. It was agreed that the rules covering this needed to be stated more clearly on the membership leaflet. The (new) Treasurer suggested that a cut-off date would need to be set, tied to that operating for seed orders, such that anyone joining after that date should be deemed to be joining for the following year, and would not be able to receive seeds until then. Exactly which copies of Pentachondra these new members, and those joining earlier in the year, would receive, would be the subject of further discussion by the committee.

The question of joint membership was also raised. While this did make subscriptions more complicated, the Treasurer indicated that he was happy to continue administering this, and it was agreed that joint membership for two people at the same address would continue to be offered at £2 more than the single membership.

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