APS Australasian Plant Society

PENTACHONDRA

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The prickly bush-pea, *Pultenaea juniperina*

AUSTRALASIAN PLANT SOCIETY

Promoting the cultivation and conservation of Australasian plants, and their closest relatives, in northern hemisphere gardens

Number 64

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APS NEWS

Well, 2020 is certainly proving to be an interesting year. Who would have anticipated as 2019 slipped away that our lives would be changed so much by a funny shaped virus the visualisation of which reminds me of nothing so much as christmas tree decorations that my mum used to make. Extraordinary is a greatly overused word, but it seems appropriate. So in these extraordinary times your society trusts that members are keeping healthy and able to enjoy their plants and cultivate their gardens.

Congratulations

The prestigious Veitch Memorial Medal is awarded annually by the Royal Horticultural Society to people who have made an outstanding contribution to the science, art and practice of horticulture.

So, many congratulations to John Anderson, Keeper of the Gardens at Windsor Great Park. His extensive plant knowledge covers everything from tropical to temperate and herbaceous to woody. And congratulations too to Dr Owen Johnson, Registrar of the Tree Register for Britain and Ireland, and champion recorder of British trees (www.treeregister.org/). Owen is a good friend of our society and many members will know him from his contributions to Pentachondra.

Events

The visit to Sue Norburn's garden and Leonardslee, scheduled for 16th May has been cancelled for now, and the RHS has cancelled its 2020 Specialist Plant Society Show at Wisley. In addition our visit to Abbotsbury Subtropical Gardens has been rescheduled to 2021. At the time of writing the Great Dixter Autumn Plant Fair is still due to to be held, on the 3rd and 4th of October, but when government restrictions on large gatherings will be lifted is anyone's guess.

Given the likelihood that some form of physical distancing measures may remain in place, the Committee is working to determine how we can hold our AGM in a manner that will allow APS members to attend. Should it be possible to hold it as normal then we will endeavour to do so but currently we are considering all options including holding the AGM online. We will keep you posted!

In the meantime, should Leonardslee Gardens, or Abbotsbury, or both, reopen to the public we would encourage members who can to visit as individuals. Gary and Maria Firth went to Leonardslee just before lockdown, and reported that it was looking splendid, especially the impressive *Acacia pravissima* (Ovens wattle) in the glasshouse (photo, back cover). And in between cutting the grass and watering all the plants in the nursery, Sean Boast has been busy revamping a tired bed in the Australasian garden, ready for when Abbotsbury opens again.

Support independent nurseries

Government restrictions due to Covid-19 have been devastating for independent nurseries. They have been unable to open to the general public, and the spring and early summer shows and fairs that they would have sold at this year have been cancelled.

Correction

Tony Entwistle died in 2016, not 1986 as stated on page 27 of the last issue of Pentachondra. Many thanks to Sue Hyams for pointing this out.

So please, if you are looking to buy plants, remember all those nursery folk out there and help keep their businesses going by purchasing plants via mail order if this is offered, and by visiting and buying plants from them when they are able to open again. You can get information about many independent nurseries by visiting http://independentplantnurseriesguide.uk/.

Some independent plant suppliers are also APS members. You will find a leaflet giving their details enclosed with this Pentachondra - it updates the one that was compiled in 2017.

APS Facebook Group

After much discussion the committee decided to open the APS Facebook group to people who are not APS members. It remains a private group, and is administered by APS members, but now anyone interested in growing and conserving Australasian plants and their nearest relatives in northern hemisphere gardens care share their experiences of cultivating these plants.

Already this change has led to more and more frequent posts, with lots of great photos of great plants and much exchanging of information. If you haven't checked it out yet, the group is called 'The Australasian Plant Society'. And if you have friends who are interested in Australasian plants , but not APS members, why not suggest that they join?

Twitter

In the December 2019 issue of Pentachondra there was a plea for someone to take over the administration of the APS Twitter account. No one has yet come forward, but we live in hope and Robbie is still waiting to hear from you at chairman@anzplantsoc.org,uk.

In the meantime, if do you post anything to do with Australasian plants on your own Twitter account, please tag the APS using @GondwanaPlants. This alerts Robbie and as a bonus you'll get retweets.

Eucaflip

This full colour photoguide is designed to enable the easy identification of all 29 eucalypt species native to Tasmania. It was recommended by the late John Purse as the best guide for identifying eucalypts in the UK, as the species most commonly grown here are from Tasmania. It illustrates the key diagnostic features - fruit, buds, bark and leaves - with life-size photographs (photo page 32). It is laminated and light enough to carry. When fully open it measures 92 by 48 cm but it folds up to 23 by 12 cm..

Contact Judy Clark to purchase a copy for £7.50 plus postage; **please note** that enquiries@anzplantsoc.org.uk is her temporary email address .

I spy a Wollemi

Do you grow a wollemi pine? Do you know of a wollemi pine growing in a park or garden near you? Dr Cathy Offord and the science team at the Royal Botanic Gardens, Sydney need your help. They want to find out more about how *Wollemia nobilis* is doing in cultivation around the world and you

can help is by responding to a short questionnaire about any wollemi pines that you know. To find out more about the research, and to access the survey, visit www.rbgsyd. nsw.gov.au/Stories/2019/I-Spy-A-Wollemi-Pine.

Treasurers Report

The overall financial situation of the Society is still healthy, with a considerable surplus of income over expenditure in 2019, although this figure is somewhat distorted by the timing of invoices for Pentachondra printing. Less was spent on seed purchases and AGM expenses this year than in 2018, and the average cost of providing all the membership benefits is still well covered by the subscription rate, at least where UK members are concerned. There is therefore currently no need for us to consider subscription rises, although the quite rapidly rising cost of postage to overseas destinations may mean that the subscription rate and seed payment for overseas members may need to be reviewed in the not too distant future. Membership is more or less stable, with 189 paid up at the end of the year, compared to 192 at the end of 2018, the lapsing of existing members being generally offset by the recruitment of new members, mainly through the website.

Jeremy Spon

Have you paid your subscription?

If you have not yet paid your 2020 subscription you will find a final reminder to do so enclosed with this newsletter. Please ignore it if you have paid very recently as you could have paid after the editor received the membership list.

2020 Seedlist

The 2020 seedlist is enclosed with this Pentachondra, along with an order form. Due to a recent change in European and UK legislation we have been unable to access some of the intended seed for this years list. We are currently investigating this and will update you and/or the seedlist as and when we are able.

Fortunately several members have donated seed. Special thanks are due to Albertus Jan-Willem Vos, curator of a private botanic garden, who very kindly gave us seed of *Acacia adunca*, *A. covenyi*, *A. cultriformis*, *Billardiera longiflora*, *Cassia artemisioides*, *Dodonaea viscosa* and *Kennedia rubicunda*.

Two items from New Zealand that are new this year are *Metrosideros umbellata* and yellow-flowered *M. excelsa*. *Metrosideros* seeds are not difficult once you know that they need light to germinate. So sow thinly on top of a moist seed raising mix, don't cover the seeds, and don't let the compost dry out.

Both species are tender, but they make good container plants. For more information take a look at Gary Dunlop's article about *Metrosideros* in the May 2015 issue of Pentachondra (number 54, page 17). You can find it on the APS website - if you don't have a password to enter the members' area contact APS webmaster Ben Ram.

Another New Zealand addition is *Muehlenbeckia astonii*, known as wiggywig, shrubby pohuehue and shrubby tororaro. This unusual shrub has divaricating branches, and male and female flowers on separate plants. It is a New Zealand endemic which is

nationally endangered and threatened in the wild. You can find out more on the New Zealand Plant Conservation Network (NZPCN) website; go to www.nzpcn.org.nz/flora/species/muehlenbeckia-astonii/.

There are no new seed challenge species - maybe it was just too hard? But *Ricinocarpus pinifolius* and *Exocarpos sparteus* are still available. If you should succeed with either please let us know.

Meantime when you are tending your plants and you spot one with ripe seed pods or capsules remember the APS and collect the seed. Keep it dry (this is essential) and send it to seed manager Janet Miller as soon after collecting it as possible. Don't worry if you are unsure of the parents. There is an item on the list labelled '*Grevillea rosmarinifolia* x *lavandulacea* (open pollinated, UK provenance)'. I collected it, and it is listed as open pollinated because I don't know where the pollen came from. Other grevilleas in its vicinity include *G. lanigera*, *G. arenaria* and *G. victoriae*. Grevilleas can be very promiscuous so you never know what might emerge from these seeds.

Judy Clark

Could you write something for Pentachondra?

As always, many thanks to everyone who has provided material for this issue. Our journal would not be what it is without you as there is nothing like first hand experience for providing useful information about how to grow Australasian plants.

If you'd like to contribute something but are short on inspiration flip through a back copy or two to see the topics others have written about: particular species or genera; plants they have cultivated; their own gardens; places they have visited; books they have read; and so on. You will see that the only constraint is that there has to be some connection with Australasian plants and their allies. Items can be any length, from a short paragraph to several pages or more.

The deadline for the next issue is **31st October 2020**. Please send contributions as word documents or similar (not PDFs) and please do not compress photographs. If you have any questions about contributing please don't hesitate to contact Judy at enquiries@anzplantsoc.org.uk (**please note temporary change of address**). I'll be delighted to hear from you.

Don't forget the APS photography competition!

In the last issue (page 3) we announced that in 2020 the society will be holding a photography competition. For new members, and for members who have forgotten, the rules are as follows. The photo should be of a native Australasian plant or plants being grown in the northern hemisphere in a pot or in the ground. Each member can submit one photo. The deadline for submission is 2 months before the date of the 2020 AGM (not decided yet but usually held in November).

Email your photo (not compressed) together with the name of the plant(s) and where the photo was taken, to Ben Ram at webmaster@anzplantsoc.org.uk.

The winner will receive a print of a Celia Rosser Banksia drawing.

GREVILLEA WILKINSONII: BUSHFIRES ARE NOT THE ONLY THREAT

Jeff Layman

The recent Australian bushfires affected many plant species already known to be threatened, and may have pushed others towards that condition – plant conservation scientists are still trying to get a handle on both cases. After a southern summer of bleak news, it was good to hear that one species at least – the Critically Endangered *Grevillea wilkinsonii* or Tumut Grevillea – narrowly escaped the fire. This species occurs in a very limited area along the Goobarragandra River in south-central New South Wales, just north-west of the Snowy Mountains.

The following information was received by email from grevillea taxonomist Bob Makinson, a leading member of the Australian Network for Plant Conservation (www.anpc.asn.au)

"*Grevillea wilkinsonii* is a very rare species found only in the Tumut area of New South Wales. It did survive last summer's bushfires, although it was a bit of a white-knuckle situation for about five weeks.

One of the very big fires, known as the Dunns Road fire, started from dry lightning strikes well off to the south near Tumbarumba in the last days of December. By New Year's Day it was burning rapidly northward towards the Goobarragandra Valley (and other places), and the valley was full of smoke with visibility down to about 300 m. I have a small place in the valley a few km upstream of the natural range and we had just gone down for a holiday (ha!). We got out that night, as if the fire had jumped into the valley (and it was known to be ember-showering up to 10-15 km ahead of the main front) we wouldn't even have seen it until it hit the driveway. I went down again a couple of times in January and both times pulled out after 2-3 days when a heat peak came and the Rural Fire Service advised get out. By then the fire had burnt into the Bogong Peaks immediately to the south of the valley - the fire flank was about 3-4 km away - and into the very head of the valley at higher altitude than the grevillea.

To cut a long story short, every peak danger period - that is a very hot couple of days preceding an unpredictable southerly change - had just enough moisture and just the right (wrong) winds to push the fire flank decisively over the Bogongs and into the valley. In the first ten days of February the situation finally eased and after a big rain dump and in the second week of February the fire was finally extinguished.

So - *G. wilkinsonii* is OK. Except that it still has not come back at many sites from the gigantic flood of 2012, which took out more than half of the natural plants and sites. There has been some limited planting at one site (Graham's Reserve), and there are plans to put some in at the Thomas Boyd Trackhead reserve.

The drought since 2014 or so, while not as bad in the Goobarragandra Valley as in very many other places, has meant that river banks are not revegetating well except with willows, blackberry and - a new threat in the riparian zone, Lombardy Poplars -

which the locals unfortunately love because they are ornamental and they stabilise the river banks. I have tried to raise the alarm about the poplars, which are now widespread through the grevillea zone, and which only established along the river banks after the 2012 flood, from garden debris. They are now approaching the age at which they will begin suckering, and soon will form large patches that will be much harder to remove, and will suppress the remnant native vegetation, including *G. wilkinsonii* where they occur together. The poplars are ornamental and do help stabilise the river banks, so in the absence of a proper native revegetation strategy after the flood they are unfortunately being tolerated by landowners who perhaps don't yet realise how invasive they may become."

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SAVING THE WOLLEMI PINE

Judy Clark

The bushfires that rampaged over much of south eastern Australia during last spring and summer now seem a distant memory. But at the time I was extremely concerned for relatives and friends, not least because from initial reports in the UK media one could be forgiven for thinking that almost the whole of Australia was on fire.

Once I got a better handle on the geography and learned that everyone I cared for was safe my thoughts turned to nature. The UK news was full of heartrending pictures of stricken koalas and fleeing kangaroos but plants, as far as I recall, barely got a look in. I heard that there were extensive fires in the Blue Mountains area of New South Wales and I wondered whether fire had reached the gorge in the Wollemi National Park that is the location of the only known living wild specimens of *Wollemia nobilis*. On November 16th I read in a Daily Telegraph report (www.dailytelegraph.com.au) that what was known as the Gospers Mountain fire had already burnt 100,000 hectares and the map that accompanied the article showed that this area included the Wollemi National Park. But not until 19th December did I get any news of the pines, from a report that said the NSW National Parks Department was doing everything it could to protect the pines but was still unable to confirm their safety.

The Gospers Mountain fire eventually burned more half a million hectares before it was contained in mid January. I learned the good news from a Guardian article of 15th January (www.theguardian.com/australia): most of the Wollemi National Park had been burned but in an operation carried out by the NSW National Parks and Wildlife Service and the NSW Rural Fire Service a specially deployed team of remote area firefighters had stopped the fire from ravaging the pines.

According to a later piece in The Australian Weekend Magazine (www.theaustralian.com.au/weekend-australian-magazine, 14th February) the plan was fairly straightforward; to moisten the ground around the pines by pumping locally available water through a sprinkler-type system; to try and slow the advancing fire by dropping fire retardant in its path; and to use helicopters to bucket the area with water.

But it was not straightforward to carry out. All the staff and equipment had to be flown in by helicopter and winched into the gorge. Pipes, pumps and sprinklers had to be assembled into a working system on site, and whilst doing so the team had to avoid treading on any seedlings. And before work even started all equipment had to be sterilised, for fear of introducing diseases to the very susceptible pines. This would not be an easy task in any conditions, let alone in the middle of an extremely dangerous fire zone where there was always the risk of the fire changing course and staff becoming trapped.

At the time the effort was kept behind closed doors, apparently because of the politics. When lives and property were at risk on the blazing east coast of Australia how might it look to some if it was known that resources were being diverted to save a tree? Fortunately the NSW environment minister, Matt Kean, didn't want to go down as the environment minister who let Australia's living fossils get incinerated without trying to do anything about it.

Although some of the trees were charred the species is expected to survive. It was already classed as Critically Endangered because so few survive in the wild (anything from 40 to 200 according to what I have read) although tens of thousands are thought to be growing in public and private gardens around the world. Their exact location in the wild remains secret because of the dangers to the pines posed by visitors, dangers that include trampling regenerating plants and introducing diseases, and so threatening their survival in the wild.

HAKEA WAS MY FIRST LOVE

Martin Krueger

Although not being spoiled by the British climate, I am still a very keen gardener in the East of Germany. And I would like to stay one even though during the last years it is not only me who has observed a climate change to the much drier and the much hotter. Before we were concerned about plants surviving the winter, now I am anxious about my jewels surviving the summer! Already my grandmother has said we are living in a steppe, but I guess what she was experiencing cannot be compared to the conditions we are facing now.

The garden of my family, which I am looking after, is situated on a hill facing south with lots of drying winds. The soil – if you can call it soil at all – is sandy, sometimes the purest sand which we used as anti-slide during the now disappeared winters. It is also perfect to let the children play in ...

But as you might imagine, as a gardener I wasn‘t so happy with that brown colour creeping into my garden during the months of June to September. I tried to change something for the better. While looking west and southwards I found the Mediterranean vegetation very very tempting, of course. But still, didn‘t I and the neighbours already have lots of lavender, rosemary, cistus, helianthemums and so on in our /their gardens?

So I stumbled upon a little nursery in France where they were selling plants from even further away. The nursery's name included the tempting terms

"exotique“ and "rustique“, two words that made me feel really excited. So I ordered a plant whose name I had never heard before, though the plant‘s family name was very familiar to me, yet still somehow mysterious: Proteaceae.

The plant itself was called *Hakea microcarpa* and I guess you must be a very nerdy person to find something tempting in cultivating this mixture of broom and pine. Still, that it originated from Australia made this plant very desirable to me, although I have to keep my little son away from it as it stings quite a bit, as you might know. Although I have never been to Australia I imagine vast areas of it would match our summer garden – colour, brown/reddish; windy; sandy soil; sometimes hostile to life.

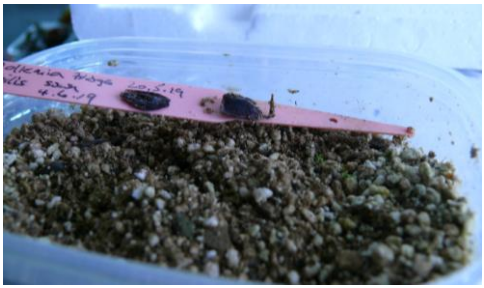
Having planted my first hakea, the bed around it turned into something like an altar – trying to emphasize the 'beauty' of this newly arrived specimenn from the antipodes. I don‘t know what it is that drags me towards this plant and, I have realized, also towards the rest of its family. Is it the breath of the exotic they bring to us? Is it their most beautiful and peculiar flowers? Or is it their sometimes difficult cultivation which awakens our ambition? I didn‘t think a lot about this, yet - maybe because I was enthused but not in a completely rational way. I wanted to have more! More Proteaceae and as these special characteristics mentioned above often apply to many plants of the antipodes, not only more plants from Australia but also more from South Africa and South America.

I must also admit that that as I don‘t own a green house I confined myself to plants that might possibly survive our harsh East German conditions. For me there is nothing is more tragic than seeing a plant starving for light inside in winter and finally dying walled in alive.

While I was writing this I remembered some of my childhood days, where I couldn‘t fall asleep, because I mentally went up and down the eucalyptus list of a seed selling company. And I remember that I was thunderstruck by the sight of these trees during my first visit to Kew, still a school boy in the 1990s. So, I guess, I absorbed my love for Australian plants already very early in my life. I also remember that none of the *Eucalyptus* seeds I ordered from that catalogue germinated; this disappointment imposed a long pause in my plant love.

As I mentioned above, after buying my first hakea I developed a strong affection for Proteaceae and I wanted more. But my ambition led me to buying seeds rather than ready grown plants. The pleasure of seeing a little plant grow big, strong and maybe even flower as a result of your own mastery (or with me luck) is incomparable.

I bought seeds of some *Banksia* (*canei*, *occidentalis* and *marginata*), *Telopea truncata*, *Leptospermum rupestre* and also of my beloved *Hakea* (*epiglottis*, *salicifolia*, *decurrens*, *lissosperma* and *nodosa*). Besides that I went for *Eucalyptus* again (*amygdalina*, *pauciflora*, *rodwayii* and *subcrenulata*) and tried *Melaleuca virens*. All seed came from Wildseed Tasmania. A friend of mine who was doing an internship at Logan Botanic Gardens also supplied me with a taster of *Metrosideros umbellata* and *Callistemon rigidus*. Especially concerning *Eucalyptus* my









Jude Lawton's Wollemi Pine seedlings

Clockwise from top right, figures 1, 2, 3 and 4

Jeff Layman's Grevillea wilkinsonii cuttings showing callusing after a year in water





Martin Krueger's babies
Anticlockwise from left
Hakea epiglottis
Metrosideros umbellata
Eucalyptus subcrenulata
Leptospermum rupestre









Left
Michael Sullivan is trying his hand at breeding correas

experiences from the nineties continued to have an effect on me but amazingly I was really lucky this time. All of the above mentioned seeds germinated very well, except for the *Telopea* – my new favourite with flowers of extraterrestrial beauty.

Being disappointed again, I became unfaithful and bought a plant of *Telopea* 'Shady Lady Yellow', which I learned is a hybrid of *T. oreades* x *speciosissima* x *truncata*. But I didn't only buy a plant. I realized when I closely examined the top of the soil that there were numerous seed capsules on top of it! And all of them packed with healthy fresh seeds! Now I have also got *Telopea* seedlings – although I wonder of course as to exactly how they will turn out.

Now I own about at least 200 seedlings (photos opposite) of different Australian plants. They will have to face the summer heat and drought and who knows what else – maybe a cold winter will come again? Nevertheless a fire has started to burn inside of me and I will try with all my efforts to keep these babies alive.

Maybe we are able to continue their cultivation in our gardens not only for reasons of beauty and egotism but also to fight a possible extinction, which doesn't seem too unlikely after the recent conflagrations.

I am very happy to receive more information about Australian plants that might possibly survive our East German climate, and to meet people who have the same interest in them as I do. You can contact me at kruegeramartin@googlemail.com.

STARTING SMALL

Natalie Reynolds

My interest in Australasian plants is quite a recent development in my horticultural journey. I first started growing food, and then slowly developed a healthy obsession with ornamental plants – that is what I mostly grow nowadays. I was reluctant to grow Australian plants in particular for two reasons: first, they are not native to the UK and I like to grow plants for pollinators and, second, we are renters and so the plants need to oeither be in pots or be easy to dig up when we have to move.

However, two years ago I found a kangaroo paw for sale at the Eden Project in Cornwall. An Australian plant, IN the UK? How ridiculous! But it came home with me because I liked having a connection to the country in which I was born. Sadly, that kangaroo paw (Beauty Red) didn't make it through the winter. I did bring it indoors, along with my pelargoniums, before the first frost, but they pretty much all died due to gnats.

Last year, I found another kangaroo paw (potentially Beauty Orange, to be confirmed) at a garden centre not too far away from where we live. This time I overwintered it in the cold frame along with my growing collection of pelargoniums. I propped them up so they were not in direct contact with the decking, allowing them to dry out over the colder months and watering sparingly. They have all survived the winter and I am hopeful I will see my Aussie plant flower again this summer.

Our garden is west facing and is relatively small; we have some

decking, where I have most of my plants (in containers), a lawn, and a small flower bed at the bottom of the garden. No trees. The cold frame is on the decking, against a brick wall; I suspect the sheltered conditions and warmth from the brick wall has helped my precious plant survive.

Other plants I am growing in pots are two species pelargoniums: *Pelargonium australe* (Tasmanian form, **photo page XX**) and, this year's addition, *P. australe* 'Redondo' (inland form). Here is where I learned that bees do not necessarily have a check list of what is 'native' and what isn't – many plants that we grow in our gardens are beneficial to pollinators but are not native in the strictest sense of the word. My Tassie pelargonium was a hit among pollinators, which made me extremely happy. Both can be found at Fibrex Nurseries – they also deliver by post.

This year I will try to grow some plants from seed, mainly annuals: *Helichrysum bracteatum** (Silvery Rose and Salmon Rose) and *Brachyscome iberidifolia*, and also *Eucalyptus gunnii*, all from Chiltern Seeds. It will be interesting to see whether the daisy-like flowers will attract pollinators. I will also keep an eye out for the seed list the APS will publish soon. I would love to hear from you, particularly if you are growing Australasian plants in pots: I am on the Facebook group, and I am most active on Instagram, @tulipsandterracotta.

***Editor's note**: *Helichrysum bracteatum* is now *Xerochrysum bracteatum.*

PROPAGATING GREVILLEA WILKINSONII

Jeff Layman

I'm not too bad at growing plants from seed, but I will be first to admit that cuttings are another matter. I can have problems with salvias, fuchsias, and other plants which most people can root without trying. And so it was with *Grevillea wilkinsonii*, which has proved to be one of the most difficult plants to propagate. I am not certain, but it could be because just about all its branches have flower buds on them, which start to form as soon as the plants have finished flowering (March to May in the UK). All flower buds were removed when I took cuttings.

Over several years I tried cuttings with and without hormone rooting powder (or gel), with and without bottom heat, keeping humid or dry, and various combinations of these. Root Riot cubes and Clonex Gel were also used. I tried layering, with and without a small slit in the layered branch (held open with a small splinter of wood), and putting hormone rooting powder in the slit. Nearly all of these failed. A couple of times a cutting did root, but it took quite a time and I have no idea why those were successful. It seems that if it is successful, it will take at least six months to root.

Shortly before Christmas 2018 I was in the greenhouse and accidently broke off a small branch of *G. wilkinsonii*. Not wanting to waste it, I made several cuttings 12 - 15 cm long, and put them in a bottle with around 3 cm of water in it (in the same way that I might root impatiens cuttings). I put the bottle in a shady part of my conservatory and

forgot about it for a few months. When I next looked around April 2019, one of the cuttings was dead, but the remaining four still had a green leaf, and I assumed they were still alive. I topped up the water level, which had sunk to about half, and once again forgot about it. In late summer I 'found' it again, and all the cuttings still seemed alive, so I topped up the water again. In early January 2020 I had another look. The cuttings still seemed alive, and amazingly two of them had callused (photo page 9). At the end of the month I decided to pot them up, but dipped them in Clonex Gel first. As of 24th March they all appear to be alive, but do not have any roots.

It seems extraordinary that these cuttings had survived for over a year on water alone. *G. wilkinsonii* may be very difficult to propagate, but it really is a survivor!



AN EXCITING PROJECT: GROWING WOLLEMIA NOBILIS FROM SEED

Jude Lawton

In 2018 Benoît Klein, then an APS member, arranged for the APS to acquire seeds of the Wollemi pine from the Australian National Arboretum in Canberra (www.nationalarboretum.act.gov.au). There are strict rules governing the sale and propagation of this rare and ancient tree, which those of us who take part have agreed to abide by. Consequently, on 5th May 2019, I was delighted to receive eleven seeds with detailed instructions (thankfully!) for germinating and growing on.

These included stratification for two weeks at 6ºC under light, not easy to provide in summer. As light may not be relevant, I settled for putting six seeds for two weeks in the fridge, sowing six seeds in the recommended 50:50 coarse sand and perlite, on 20th May. The next step (4th June) is a propagator at above 20ºC, preferably 27-30ºC. I have a dewpoint propagator which provides light (14 hours a day), humidity and temperature control though, as I grow other plants in there too that may prefer to be rather cooler, I set it at 24ºC.

Returning from a week at Hampton Court on 8th July, I was very excited to find my first seedling popping up, which I potted into a mixture of Melcourt Silvagrow, sand and perlite - good drainage is important (figure 1, this and subsequent figures on page 9). Three weeks later, seedling number 2 appeared and was duly potted up. Both seeds and seedlings went back into the propagator, where they put on a little growth, very slowly.

Then, disaster! The propagator has a leak, and I failed to notice it had dried out. Number 1 looked rather shrivelled in the hot, dry air, but I replenished the water and crossed my fingers. It is still there, looking sad, and might even be dead, but it takes a lot to convince me a plant has died so I live in hope.

On 23rd November, I was surprised and, of course, delighted to see number 3, 25 weeks after sowing. Since the instructions said that most germinate in 5-8 weeks but may take upwards of 12 weeks, this was unexpected but welcome. I thought 50% germination

pretty good and settled for that. So I was almost levitating with excitement on 20th January this year to find number 4 growing (figure 2). Growth is slow but three are looking healthy; number 1 is, I like to think, hanging on. Numbers 2 and 3 are already branching (figure 3).

On 30th March, I was planning to sow the remaining five seeds without stratification, and looked in the tub for the two seeds which had not germinated. I don't know if anything will come of it, but one of those seeds seems to have thrown out the beginnings of a root (figure 4), so I shall pot it and wait. The other seed does not appear to have deteriorated so I'll give it a chance.

At the moment, I have not dared to free them from the propagator, although I have turned the temperature down to 20ºC for the sake of the other plants I have in there. But with spring comes hope of warmth and enthusiasm for growth, so I shall liberate them soon and keep a very careful motherly eye on their progress.

Has anyone else had any luck with these seeds? I'd love to hear from you and share any tips you may have for keeping these charming little dinosaurs safe and well; email me at conservation@anzplantsoc.org.uk.

HAKEA CUCULLATA

Gill and Tim Burr

Hakeas can have showy flowers. Our 'Australian' glasshouse has two: *Hakea cucullata*, and *Hakea florida*. Both are from the southernmost tip of Western Australia, broadly in the Stirling Range area. The photo on page 19 is mainly of the former, but the latter is also visible, to the left behind the red flowers of *Templetonia retusa* in the foreground. The two hakeas should make a good pairing, as one flowers in spring, and the other in summer. But until now, neither had produced conspicuous flowers. Those of *H. florida* have been understated, with the plant more conspicuous for its penetrating prickles. It might have been called *H. horrida*, were not another, yet more prickly species, already holder of that name. We are still waiting for the full *florida*.

We are no longer waiting on *H. cucullata*. This month (March 2020) it has come into flower, as shown in the photo on page 19. Looking closely, the third flower from left can even be seen to be dropping beads of nectar. The way the flowers are 'hooded' by the leaves is also apparent, a consequence of the flower buds springing from leaf axils. 'Cucullata' is Latin for 'hooded', hence the botanical name of this species, which is appropriate as the flowers do tend to be hidden in the foliage.

Our cultivation of *H. cucullata* began with the purchase of a few seeds (five, from memory) at Stokes Bay Bush Garden on Kangaroo Island, when visiting five years ago. Through the summer of 2015 we struggled to persuade them to germinate. Eventually, with hope almost gone, we succeeded with just two seeds, using wet blotting paper. Once ready for planting out, we squeezed them into what space we still had left in the soil of the glasshouse. This is our normal alluvial garden soil from the Arun River terraces, downstream of Pulborough, West Sussex. Both grew on, but in our experience shrubs of all

kinds need time before they really establish (or not) in the ground. One did, and the other didn't.

The survivor then grew rapidly, reaching the apex of the glasshouse roof (3.4m high), and might go higher still if it could. It seems robust and healthy, despite being part-shaded by *Hardenbergia comptoniana* spreading across the glass above it (and also flowering in March). It is unaffected by the Australian light-brown apple moth (*Epiphyas postvittana*), long naturalised in southern England, and an unwelcome addition to the Australasian ecology of our glasshouse.

The only fertiliser is a dosing of Maxicrop Original Seaweed Extract in the watering-can every other week in the growing season, applied indiscriminately to all the many plants in the glasshouse. As a natural product, no analysis is given on UK packs, but in Ireland it is a legal requirement and is just N: 0.5-2%, K: 1–2.5%, so P must be minimal. The extract has not therefore caused problems with other Proteaceae such as *Banksia burdettii* and of course *H. florida* planted nearby. Low-phosphate general fertilisers are otherwise hard to find in Britain.

Heating during the winter months is only sufficient to keep our 45 square metre glasshouse frost-free, using an 11 kW propane heater. Fuel consumption has been lower than ever this past winter, which if wet has also been mild. To plant a *Hakea* from Western Australia in an English garden would seem hazardous, but a conservatory with a good roof height might be suitable. Whether root development would however be adequate in a large conservatory pot we cannot say.



PHILOTHECA MYOPOROIDES (LONG-LEAF WAX FLOWER)

Gary Firth

We are fortunate in the UK to be able to source a wide range of Australasian plants from specialist nurseries, many of them members of the APS. Occasionally though you come across interesting Australian plants from unexpected sources. Hayloft is a well-known mail-order nursery based near Pershore specialising in young plants of annuals, perennials, shrubs and small trees. Buried within its on-line catalogue you will find a few surprises, including a small range of grevilleas and lomatias. A couple of years back they started offering young plants of *Philotheca myoporoides*, a plant I had never heard of but which I learnt was native to south east Australia. A few other APS members I spoke to were also unfamiliar with the genus *Philotheca* but were aware of it under its older name of *Eriostemon myoporoides*. Naturally I had to purchase three young plants.

Philotheca myoporoides was first described by Swiss botanist Augustin Pyramus de Candolle in 1824 as *Eriostemon myoporoides*. It was transferred to the genus *Philotheca* in 1998. It is a small shrub to about 2m high growing in dry forest and heathland in New South Wales, in mountainous areas of Victoria and in Southern Queensland. It is a relatively dense shrub bearing small 2cm star-

like flowers (photo page 20) arising from pink tinged buds in late winter and spring. The narrow slightly waxy leaves are said to be up to 8cm in length (although those on my plants are significantly shorter). These are held out at a wide angle from the stem in an open, alternate arrangement (photo page 20). Both flowers and leaves have a strong fragrance of citrus. A number of sources describe the scent as reminiscent of gin and tonic!

In cultivation the plant will grow in sun or semi-shade in a wide range of soil types and is tolerant of drought and moderate frost. It is occasionally available from several other sources in the UK, including Thompson and Morgan, all of whom describe it as fully hardy. It is slightly unclear whether this is based on observations in the UK or simply based upon descriptions from Australia.

My three plants were approximately 20cm (8in) high when I received them and so were potted up in Melcourt peat–free compost and overwintered in a heated conservatory. All grew well and flowered lightly in late spring of 2019. All developed rapidly and were potted on into 4 litre deep rose pots. Numerous flower buds developed in late summer but did not seem to develop further. Two plants were planted out in late summer/early autumn of 2019 in a new small Australian bed and protected with a fleece cover over winter. The remaining plant was kept in its pot in my unheated summerhouse. To my surprise, the buds started opening in mid-February and at the time of writing (towards the end of March) it is covered in fragrant white flowers. The two plants that were bedded out are also in flower, albeit they have put on less new growth.

Of the other plants in the bed, all grown under the same fleece tent, all the melaleucas (*Melaleuca nesophilia, M. acuminata, M. squamea* and *M. cuticularis*) plus *Beackea linifolia,* several small Hayloft grevilleas and a kangaroo paw have survived. Unfortunately both *Baloskion tetraphyllum* and *Grevillea victoriae* seem to have died.

I would commend the long-leaf waxflower to other members. It is compact, evergreen, drought and (probably) frost tolerant with fragrant foliage and lovely white star like flowers. What more could you ask for? It is said to be erratic from seed and slow from semi-ripe cuttings (I have yet to try). It grows densely right down to ground level and apparently can be lightly pruned to form an informal hedge. Several named cultivars are available in Australia though not apparently in the UK. A number of sub-species are recognised although in recent years several have been raised to species status. I am not aware of any of these in the UK.



GREVILLEAS AT INVEREWE GARDEN

Skye Campbell Bancroft

Inverewe garden, known as the 'Oasis in the North' for plant lovers, is 58' latitude North, situated in the north west highlands of Scotland. The garden was originally established in 1862 by Osgood MacKenzie, who transformed a barren rocky outcrop of land into a medley of rhododendrons, exotics and Australasian species.

Today at Inverewe the Australasian collection can be found starting from the Visitor Centre, leading down the drive and into the different areas of the woodland, and includes a Plant Heritage National Collection of *Olearia*. With careful thought put into landscaping over the years, many Australasian species thrive at Inverewe, including *Leptospermum myrtifolium* and *Olearia solandri* both dating from 1960s.

Whilst delving into this collection, a group of plants that stands out to me are the versatile grevilleas. A large genus of over 300 species primarily native to Australia, it can be split into two basic groups for example cold tolerant or heat tolerant grevilleas. This broad definition for identification leads further to the flower characteristics, for example the cold tolerant Grevilleas generally having spider like flowers, whilst the tender Grevilleas mostly have bottlebrush flowers.

At Inverewe we have two cold tolerant species, both originating from New South Wales, in spectacular condition. Both plants are still young and were planted in full sun, around 2010 to 2013. Both species can withstand temperatures as low as –10°C. Foliage adaptations of this group are smaller needle like leaves to reduce the surface area exposed to harsh conditions, and their flowers are often smaller, growing right at the tip of the branches.

Grevillea juniperina (photo page 21**)** is a usually spring flowering shrub which at first glance could easily be confused with a small conifer. Positioned in full sun outside the Visitor Centre at Inverewe, this specimen is currently 1m in height and spread from a 2013 planting. It has interesting foliage of sharply pointed linear leaves from 5 to 35mm long, and clusters of pink-red unfolding spider like flowers that grow from the stem, towards the tip of the branch. Here at Inverewe it displays sporadic flowering such as flowering twice last year in spring and autumn, holding some flowers over winter.

Grevillea victoriae (photo page 21), known as the royal grevillea and named after Queen Victoria, is an erect to spreading shrub. It is located further down the drive at Inverewe. Over winter this specimen was an explosion of burnt orange-red pendent flowers over winter, 17 to 20mm long and hanging down in clusters from the stem. The alternate leaves are elliptic to lanceolate, 6 to 12cm long and around 10 to 45mm wide. Leaf margins are flat or slightly recurved, with a smooth upper surface, silvery tomentum on the underside, and dusted grey stems. One of the hardiest members of the genus, *G. victoriae* has settled well into a slightly exposed coastal position in the garden.



AN ANTIPODEAN OBSESSION

Sue Kohler

Several decades ago, a browse in a local garden centre, unearthed a small needle-leaved, conifer look-alike - covered in 'apple blossom'… This gem turned out to be *Leptospermum scoparium* 'Keatleyi' (photo page 22**)**, and it started a permanent fascination with the extraordinary Australian flora. The obsession was further fuelled by the gift of Volume 1 of The

Encyclopaedia of Australian Plants Suitable for Cultivation by Elliot and Jones. This stated - several times - that the planned work would run to four volumes and cover everything. Nine volumes and many supplements later, most of that flora was described and illustrated in all its mouth-watering perfection.

Descendants of that original plant still flourish in the conservatory, providing their delightful apple blossom for many weeks every year, much to the delight of the local bee population.

Climate

Having been so badly smitten, it has to be said that our garden is highly unsuitable as a home from home for these plants. It is dominated by large mature trees giving heavy shade; the soil is a thick, heart-breaking clay; and, above all, Sheffield's winters are unpredictable and can be cold and wet - a bad combination for this flora. Conversely, and unbelievably, the summers may be too dry (for example, that of 2018) for some of the otherwise hardy subjects, especially from Tasmania.

Nevertheless, surprising results can be obtained, using both considerable effort and a detailed knowledge of the garden's microclimates. Sheltered south-, east- and west-facing sites should be treasured. Light levels can be improved by lifting the canopies of mature trees and shrubs; planting within the protection of these larger plants can also give considerable protection from frost but there has to be some sort of payoff between light levels and frost protection in these situations - after all, these plants do come from a country of high light intensities. And soils and their profile drainage can be improved by adding as much gravel as the bank balance, and back, allow. It also helps to plant at the tops of any slopes, however small, thus ensuring that water does not pool around these delicate souls. And if all else fails the most tender species can be grown under frost-free glass.

Location

Most of the Australian plants I try are small trees or shrubs, which fit in well with the prevailing mixed shrub and herbaceous perennial plantings. In the open garden, winter hardiness is obviously critical. I have found the hardiest to be the proteaceous shrub *Grevillea* 'Canberra Gem' which has survived outside without protection for many winters, including I think, the severe 2010/11 season. It is a rather angular, evergreen, viciously-needled shrub, producing its crimson flowers almost all year - much loved by bees, wasps and hoverflies. *Correa* 'Marion's Marvel', a small, round-leaved evergreen also does very well, producing its red and yellow bells all winter. Several of the spectacular bottle brushes (*Callistemon* species) also thrive, notably the primrose yellow *C. sieberi*, scarlet *C. rigidus* and *C. viridiflorus* (synonym *Melaleuca virens*) with bright acid yellow bottle brushes.

Seasons

Some of the Australian shrubs give an added bonus in that they flower at one of the 'gap times', for example the notorious 'August Gap' when the glorious autumn displays of asters and the like have not yet replaced the exuberance of all the summer flowers. As well as *Grevillea* 'Canberra Gem' two useful plants are the creamy yellow *Grevillea juniperina* and the



Hakea cucullata

Above: with *Hakea florida* visible to the left behind the red flowers of *Templetonia retusa*

Left: the flowers, showing how they are hooded by the leaves

Below: Tim and Gill Burr's Australian glasshouse, as it was in spring 2016







***Philotheca myoporoides*, the long-leaf waxflower**

Above: showing its habit

Right: a close up of the star-like flower





***Pelargonium australe*, Tasmanian form, growing in a container in Natalie Reynolds' garden**

Grevilleas at Inverewe Garden

Grevillea juniperina

Right, showing its habit
Below right, the flowers

Grevillea victoriae

Below and below left, a cluster of flowers hanging down, and where it grows by the driveway













Some of Sue Kohler's antipodean obsessions

Clockwise from below
Calothamnus quadrifidus
Leptospermum lanigerum
***Leptospermum scoparium* 'Keatlyi'**



'Sulphurea' and the woolly tea tree *Leptospermum lanigerum* (**photo page XX)** with late white flowers. They both appreciate more shelter than Canberra Gem but are very useful nectar sources for pollinating insects.

A number of plants are out in the garden in a faintly experimental capacity. capacity. Thus *Banksia marginata* has been planted out at the top of a south-facing slope. It and has yet to overwinter although the same species has done very well in the Mediterranean area at the Sheffield Botanical Gardens. *Bursaria spinosa* is a small, light-textured tree, with thin needle thorns (its common name of southern blackthorn says it all), and also has yet to overwinter. In a good summer, it produces masses of scented, creamy flowers. *Callistemon citrinus* 'Splendens' is possibly the most brilliant of the bottle brushes, producing its huge crimson brushes in a carefully chosen, sheltered site, and after a good summer. So far I have very few herbaceous plants outside, although *Viola hederacea* may give good ground cover, with its running habit; it has unusual purple and white flowers. Its leaves have already turned to mush with the frosts so far (late 2019) so we will see… I find that the kangaroo paws *Anigozanthus manglesii* and *A. flavidus* are safer under glass, although they are sometimes recommended for outside use.

Winter protection

There are many Australian plants which need winter protection in our climate, and these can make the most beautiful conservatory subjects. They need slightly acidic, well-drained compost, and I find they usually require good fertility and plenty of water in the growing season. The main disadvantage is that many are needle leaved, and as I am required to leave space for human occupancy, there is a 'conflict of interests'. In addition the shrubs get large, outgrowing the largest pots and slowly deteriorating because potting on is no longer an option. Sadly, they eventually have to be replaced.

Nevertheless the winter-flowering correas make lovely small (and benign) shrubs, and as well as *Correa*. 'Marion's Marvel' *Correa pulchella* with its soft pink bells is a welcome sight in the depths of winter. Another friendly dwarf shrub is *Metrosideros* 'Tahiti' with crimson stamen masses contrasting well against the grey-green felted leaves. This is just one of many Australasian genera whose flowers are formed from spectacular stamen masses, which can be all sorts of colours, including crimson, purple, green, yellow and white. *Callistemon*, *Kunzea* and *Melaleuca* all flower this way, with nectaries buried among residual petals at the base of the stamens. Bees are always fighting their way through the stamens to get at the copious nectar, and the plants can set a lot of seed; this is held in tight, hard capsules fused to the branches, and in the wild, released after the short intense heat of bush fires. The most bizarre of these types that I grow is *Calothamnus quadrifidus* or Common Net Bush (photo opposite), with much-divided crimson stamen masses emerging direct from the branches, and saturated with nectar.

A brief note about propagation

I have to admit that I have very variable success with both seeds and

cuttings. I use 4" (10cm) tip cuttings, taken in the usual way when the plants are in active growth, and struck - if lucky - in pure grit sand over a small amount of compost to provide a very little nutrition, and to prevent the pots drying out too quickly.

For seed, I use a very freely drained sandy compost and try to treat the seed with smoke before sowing, to simulate the aftermath of a bush fire, when so many of these plants germinate in the wild. Failing a full-scale bush fire, I suppose that the tight hard capsules described above could be persuaded to open by drying them in the airing cupboard or in the oven. The smoke treatment can be produced by burning Australian material in an enclosed propagator, with the prepared pots left there for 'some time' (and remembering that plastic pots do not care for this treatment, producing some very interesting shapes…). Or - more conveniently, by using smoke-impregnated paper discs, or granules.

I certainly do not grow as many of these beautiful plants as others living in more favoured areas, for example the western seaboard of Britain, and have indeed hardly dented the surface of the flora at all. But those that do succeed are beautiful and unusual, and give enormous pleasure.



BREEDING MY OWN

Michael Sullivan

I am a regular exhibitor at AGS (Alpine Garden Society) shows and I often exhibit dwarf shrubs. *Leptospermum scoparium nanum* has been shown with good results. But the lack of small varieties led me to embark on trying to raise my own. In 2016 *Leptospermum* 'Kiwi' and *L.* 'Kea' were placed together and the bees allowed to do the pollinating.

The first small batch are victims of an experiment. When the seedlings had three pairs of leaves the growing point was removed and regular tip pruning was carried out throughout the year. The following year no tip pruning was done. All plants treated like this are very small and dense, and none have flowered yet. Overall the shape is good, but I suspect the density is detrimental to longevity. Flowering should happen this year.

The next batch was sown in 2018 and a more relaxed initial stopping and tip pruning was implemented. Several flowered in 2019, one gaining a first at an AGS show. These plants are dwarf and more in keeping with how they should be, and all eighty of them look different. One flower was a double which is a surprise as doubles are not in my collection. A couple of white varieties also were not expected and I suspect that pollen was transferred from a *L.* 'Snow Column' planted in the garden. (This is a really great *Leptospermum* raised by Graham Hutchins and I am desperately trying to root cuttings). One dwarf *Leptospermum* seedling will very soon be in bloom; it is covered in buds and hopefully it is going to fulfil its promise.

Correas also are of great interest. For several years I have been trying to source some of the excellent varieties raised in Australia but without success. So again I decided to collect seed and have a go at raising my own. I researched the ways of achieving this and it was clear it was not as easy as I

expected. Peter Ollerenshaw is an Australian nurseryman who raises excellent varieties and he gave me a few hints as to what varieties give good results.

Getting viable seed was an issue as when correas flower there are few pollinators around, so I placed a few *Cyclamen libanoticum* in the greenhouse and that increased the insect population. This year I have practised hand pollination by just pressing the pollen parent into the seed parent. Next year I intend to do it correctly and remove the stamens of the seed parent (emasculation) to stop self fertilisation.

Another hurdle was to actually collect the seed. When ripe the seed capsule explodes scattering the seed so you need to bag the seed capsules in empty tea bags or wrap them in foil. Then you need to devise a way of exposing the seed compost to smoke, or buy some smoke discs. I tried both methods and found discs were slightly less successful.

The seed sown last year germinated in October and germination is still continuing to the present time (mid March). By the time there is a sign of germination the roots will be well developed so potting them on individually should not be delayed (photo page 10).

I have set aside some plants to prune to open them up to make it easy to get to the flowers to deliberately cross. My show plants have been tip pruned and are very dense, but my fingers lack the dexterity to work among the leaves so it made sense to shape them just for seed collection Although I lost some seedlings to mice and a few damped off I have over fifty which is more than originally hoped for and as many as room allows! It will take a few years before they flower , but every single day they are a source of real excitement and anticipation. Even if none are good they will have paid me well for the time invested.

The internet is a wonderful source of information and I quickly found the leading hybridisers of *Correa*. I emailed my intentions to them and had replies that were not flowing with information. But without being intrusive some time later I followed up with an update on my progress and when it became clear that I had a passion for what I was doing the information I looked for came without reservation.

Over the last 20 years I have had good success with raising *Lewisia* and *Saxifraga.* As my passion for Australian plants has developed I have tried sowing seed of the ones I like the best and I also have many *Coprosma* seedlings that are now decent plants. The fun starts the moment you place the potential seed parents together, (or hand pollinate) and is a daily source of excitement , those first flowers that open give a rush of expectation. I only wish I had started earlier!

As I have started with Australian plants late in life and have embarked on raising new varieties before I have fully understood how to grow them I have had to learn on my feet, constantly adapting, constantly observing how the plant reacts to what I do. But that is gardening, we are all at different stages of the beginning, no-one gets to know everything. There is so much fun and anticipation in trying to raise new varieties; do have a go.

BOOK REVIEWS

Corokia my adventure
Mona Abboud

APS member Mona Abboud has written a book on *Corokia* – and it is great fun! The title gives a strong clue that this is not a botanical monograph, but a personal account of a passion (Mona's own word) for a group of New Zealand plants which she considers deserves to be more widely grown.

The book is a number of things: a story of how and why Mona came to hold a Plant Heritage National Collection of Corokias; a survey of the genus; an eloquent attempt to encourage us all to grow more of these versatile plants, and explain how we might use them in our gardens; and a history of the discovery and introduction to cultivation of the species, hybrids and cultivars currently grown in the UK. On the last point, it is good to see full credit being given to the nurserymen who have led the way with introductions, in particular the late Graham Hutchins, founder of County Park Nursery, and his grandson Paul Boosey who now runs it, to both of whom the book is dedicated. The book is notably well-designed and illustrated (photo page 32) – it was particularly interesting to see herbarium specimens of early collections of the species described. I was also pleased to have potted biographies of the early botanists involved in collecting and naming the plants, several of whom, up to now, had just been for me names attached to species definitions. It is obvious that Mona has spent a lot of time researching her subject.

The coverage of the genus is comprehensive within the limits Mona has set herself – namely, plants currently in cultivation in the UK. I personally would have been interested to read something about the three species not mentioned (including *C. collenettii*, which is endemic to one of the remotest of all inhabited islands, Rapa-Iti in French Polynesia!) However, the information on cultivars is very thorough, and clearly reflects direct experience of growing many of them.

I do feel bound to point out that strict botanical accuracy is occasionally lacking; Mona's use of terms like species, variety and cultivar would not always pass muster in a scientific journal. (This may explain why her claimed total of ten species in the genus is at odds with the references which I have consulted, which list six species and one natural hybrid.) But this does not at all detract from what is by far the most thorough account of corokias that I know of, and one which communicates vividly Mona's enthusiasm. My experience of the winter of 2017-18, and the 'beast from the east', suggests that corokias in general are not quite as hardy as Mona, in her garden in the northern part of the 'heat island' that is Greater London, has found them to be. But even so, she has persuaded me that I should definitely keep trying with these rewarding and fascinating plants.

The book can be purchased direct from Mona, via www.monasgarden.co.uk, with payment by Paypal, or by contacting Mona via email at monaabboud@hotmail.com, when she will provide her bank details for online payments. Mona can only send the book to purchasers in the UK, but if any overseas members are particularly keen to read it, she is willing to email

them a low-resolution electronic version in return for a donation of £5.

Jeremy Spon

The Lost Flowers of Alice Hart
Holly Ringwood
Pan Macmillan, 2018

The Lost Flowers of Alice Hart tells the story of Alice who, through the language of Australian native flowers, is able to overcome selective muteness caused by trauma in her childhood. Author Holly Ringland came across the Victorian language of flowers by chance and was astonished to learn that Victorians not only used flowers to express feelings of love and happiness, but also of hate and ill wishes.

Inspired by the act of speaking through flowers to avoid the confrontational nature of expressing one's feelings, Ringland made up the language of Australian native flowers and has used it as a theme throughout Alice's transition into adulthood as well as in the stories of the characters around her. We meet Alice at three time points in her life, and in all three plants are key: from a garden, to a flower farm to a natural park, each setting with its own symbolism. At times a dark and difficult read, it is a gripping novel that will not leave you indifferent and will have you looking up plants left, right and centre.

Natalie Reynolds

Flora of the Mediterranean – An Illustrated Guide
Christopher and Başek Gardner
Bloomsbury Wildlife, 2019

This new book portrays the breadth of flora in the World's Mediterranean Climate Regions with 800 stunning photographs. It is just the best gift from two outstanding botanists and photographers to plant lovers and conservationists, coming at the right time, when most of us are confined to home during the health emergency. Chris is also a fabulous tour leader but sadly I never managed to join one of his expeditions

The book is beautifully designed by the Gardners, glorious watercolour maps on both inside covers setting the scene and global spread of the five floristic regions: the Mediterranean Basin, California, Chile, Australia and South Africa. There is much to learn in the introductory concise botanic sections: shared plants, floral communities and adaptations, geophytes, pollination, role of fire and human impacts. Of these, it's the shared plants introduction and cross-referencing throughout the book that will particularly appeal to APS members.

Each floristic region opens with one or more full page photos and, sometimes, a two page image. Each photo – some with habitat, others close-up studies – has a full botanical description, the country or area where the plant occurs, its community and the place and month when photographed. The print is a tad small but, for me, entirely the right proportion of space on the page.

It is an astonishing labour of love and I warmly recommend the book as a celebration of the Mediterranean Climate Regions's wild beauty and as a spur to each of us to do all in our power to preserve it.

Beth Smith

WHAT'S IN A NAME: PLANTS NAMED AFTER PEOPLE

Tony Cavanagh

Kennedia

While only a small genus of around 15 species, *Kennedia* are important horticulturally, as nearly all species are attractive to spectacular in the garden. They are creepers or climbers and are found in all Australian states with some nine endemic to WA (Western Australia).

The best known is *K. prostrata*, the running postman, which I am sure all of us have seen in the bush, a prostrate plant with bright red/pink pea flowers and dark green foliage. Most kennedias have pink to purple to red flowers except perhaps the spectacular rampant WA climber *K. nigricans* with its flamboyant black/purple and greenish yellow flowers (photos page 31).

Kennedias are generally very hardy in the garden although I always think of them as preferring at least some shade. They seem to handle most soils and are sometimes used on banks and slopes to help stabilisation. They are usually grown from hot water treated seed.

Kennedia was named after Lewis Kennedy (born about 1721, died 1782), founder of The Vineyard Nursery, in about 1745 with partner James Lee. The nursery was in Hammersmith in west London and the firm (simply called Lee and Kennedy) soon developed a reputation of being able to supply the largest range of rare and unusual plants. They were large stockists of Australian plants and received some of the earliest seeds and plants for private gardens from Botany Bay. One of their best known customers was the Empress Josephine, the wife of Napoleon, who developed a spectacular garden at Malmaison. It is likely that Kennedy supplied her with a then unknown plant which the French botanist Etienne Pierre Ventenat named *Kennedia* in his honour. No picture is known of him.

Kunzea

When we think of *Kunzea*, we usually think of the spectacular WA species such as *K. priessiana* (photo page 32), *K. affinis*, *K. baxteri or K. sericea* with their massed displays of pink, pink-purple or red flowers in heads or clusters. A couple, *K. ericifolia* and the alpine *K. muelleri*, are yellow. There are up to 40 species, mostly medium shrubs with a couple such as the white-flowered *K. ambigua* and *K. pomifera* being sprawling or prostrate. Most are quite hardy and long-lived, doing best in near full sun and well-drained soil although *K. ambigua* and *K. pomifera* grow well in sandy soils and are widely used for soil stabilisation in both coastal and inland situations. They can be grown from seed or cuttings, the latter being best for propagating good forms.

Kunzea was named after the German Professor of Zoology at Leipzig University, Gustav Kunze (pictured, right), born 4 October, 1793, died 30 April 1851 . Kunze was a versatile scientist with strong interests in entomology and botany (mainly ferns and orchids) as well, and was appointed Director of the Botanical Gardens in Leipzig in 1837. It was named in his honour by the botanist and ornithologist Ludwig Reichenbach in 1828, later the founder of the Dresden Botanical Gardens, so there is

a botanical gardens connection but I have been unable to discover how these two Germans became involved with our plants.



Lambertia

This genus is part of the Proteaceae family but most species are not widely grown. There are only eleven, ten in WA and one in NSW (new South Wales). Surprisingly, it is the NSW plant, *L. formosa*, the mountain devil or native honeysuckle, which is best known in the garden. It was also grown in England in 1789. They are generally medium to tall shrubs, and the tubular flowers, often red to orange or yellow, are profuse and form in clusters. Established plants are generally hardy but, being Proteaceae, they do require good drainage and perform best in full sun or light dappled shade. I have not tried them from seed but have been successful from cuttings.

The name honours an English botanist and early member of the Linnean Society, Aylmer Bourke Lambert (born 2 Feb. 1761, died 10 Jan. 1842, pictured right), whose main plant interest was in the genus *Pinus*, about which he was the main authority having published *A description of the genus Pinus* in parts between 1803 and 1837 where many new species were described. He also bought other herbaria and amassed a large collection of specimens and drawings from Australia in the years after settlement but I cannot determine if he grew Australian plants. *Lambertia* was named in his honour by the well-known English botanist J.E. Smith in 1798.



Lechenaultia

This group have some of the most brightly coloured and spectacular small plants in the Australian flora. By far the best known are the sky blue *L. biloba* and the orange-red *L. formosa*, although with some 26 species there are many other interesting ones. One I remember being fascinated with in WA was the 'wreath lechenaultia', *L. macrantha*, which forms flat wreath-like mats on the ground with the green foliage in the centre surrounded by the profuse flowers. Unfortunately it is almost impossible to cultivate, a common story with most species which are often described as 'touchy' and 'short-lived'; they are best treated as a biennials (replace every couple of

years). If you can get a plant, it is easy enough to grow more from cuttings. They require a sunny, well drained spot and benefit from light pruning with watering only in very dry weather. There are also many hybrids which may be hardier although I am unsure how many are available in nurseries.

The name honours the French botanist and ornithologist Jean-Baptiste Leschenault de La Tour (pictured below) - what a mouthful! He was born 13 November, 1773 and died 14 March, 1826. He was the official botanist on the French expedition to Australia and the South Pacific led by Nicholas Baudin between 1800 and 1803. It appears from the expedition journal that he did not work particularly hard at his job - the junior gardener Guichenot collected more specimens and labelled them more usefully! While he later published few new plant descriptions, his specimens from Australia and other countries were described by many French botanists in later years. Between 1803 and 1807 he made the first thoroughbotanical examination of the Javanese flora and later collected in India from which he obtained two



species of sugar cane and six species of cotton, and also South America. I think that the naming of *Lechenaultia* by Robert Brown in 1810 is an honour justly deserved.

About the author

This article was first published in Correa Mail, Newsletter of the Australian Plants Society Geelong, in 2013, and is reprinted here by kind permission of Tony Cavanagh. Tony became interested in growing Australian plants in the early 1970s and soon developed an interest in the Proteaceae. He founded the Dryandra Study Group to learn more about this little known group of plants and with Margaret Pieroni (the current leader) published the book *The Dryandras* in 2006. His other interests are botanical history and the early cultivation of Australian plants, both in Australia and in Europe.

Editor's note

Do not be misled by the term 'hardy' in Tony's article. In Australia a hardy plant is one which is easy to grow, rather than one which will tolerate a particular temperature range as with RHS hardiness ratings.

THE PRICKLY BUSH-PEA

Judy Clark

Everybody knows what a pea flower looks like; you only have to think gorse, sweet peas, or runner beans to recall one. Such plants belong to the plant family known as the Fabaceae, It has representatives all over the world, including many southern hemisphere ones in Australia and New Zealand. The pretty *Pultenaea juniperina*, the prickly bush-pea, is one of these.

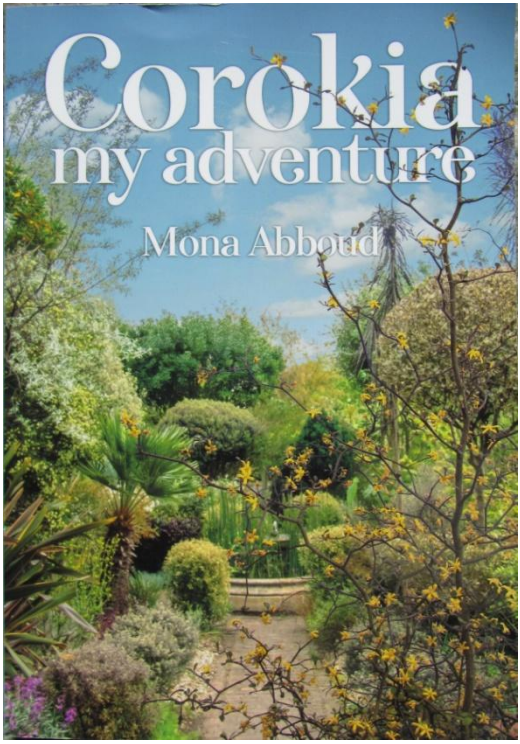




In the genus named after James Kennedy:
Above: the spectacular *Kennedia nigricans*
Below: *Kennedia prostrata*, the running postman

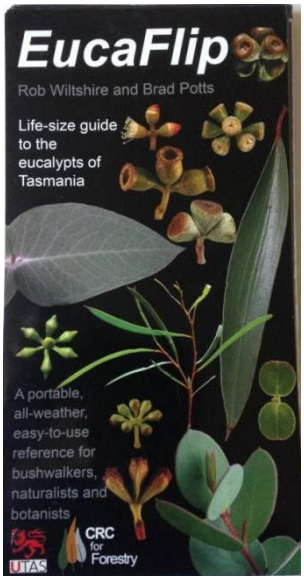


In the the genus named after Gustav Kunze: *Kunzea priessiana*



Left: Mona Abboud's new book

Below: EucaFlip



The pea family is the common name for the Fabaceae, which might seem appropriate, but alas matters are not that simple, as I will try to explain. (If If you're not interested then skip the next three paragraphs to get to the bush-peas.)

When I first started to try and understand how plants are classified those species that are now included within the Fabaceae (= Leguminosae, an earlier name that is still used) belonged to three separate families: the Caesalpinaceae, the Mimosaceae and the Fabaceae (also sometimes called Papilionaceae). However studies over the past 20 years or so, both morphological (of structure) and molecular (of DNA), have provided evidence that the members of all three are descended from a common ancestor. So now they are all placed in a single family called, somewhat confusingly for the layperson, Fabaceae (or Leguminosae).

This means that the pea family as now defined includes a lot of species with flowers that don't look like your typical pea flower; for example members of the genus *Acacia* (wattles). Their flowers have small petals with showy stamens; in contrast the typical pea flower is strongly asymmetric (zygomorphic), with often flamboyant petals of different sizes. But while the flowers might be different the fruits of members of the Fabaceae are usually leguminous; that is, the seeds are to be found within a peapod type structure, as indeed are those of the wattles.

It also means that the pea family as now defined is very large; as the third biggest flowering plant family it is exceeded only by the orchid family, (Orchidaceae) and the daisy family (Asteraceae). As far as I can make out it currently it comprises around 750 genera and 20,000 species, give or take a few. Within a plant family the most closely related genera are grouped together in subfamilies, and within each subfamily the closely related genera are grouped into tribes. However in the case of the Fabaceae deciding which entities belong where is complicated and as far as I can understand (I am not a taxonomist) what fits in where is not yet settled. However, it does seem agreed that two tribes, the Mirbelieae and the Bossiaeeae, both in the subfamily Faboideae, contain many of the pea flowered species that are endemic to Australia, including *Bossiaea*, *Daviesia*, *Jacksonia*, *Chorizema*, *Gastrolobium* and, *Pultenaea*.

The genus *Pultenaea* Sm. was named and described by the founder of the Linnean Society, James Edward Smith (hence the Sm. attached to the name), in the first published book on the flora of Australia, *A Specimen of the Botany of New Holland* (1794). Smith explains he chose this name "to commemorate the merits of a very amiable and deserving English Botanist, Dr Richard Pulteney, F.R. and F.L.S., of Blandford in Dorsetshire, well known by his *Sketches of the Progress of Botany in England* and more especially by his Biography of Linnaeus."

Pultenaea juniperina Labill. was named in 1805 by the French naturalist and explorer Jacques-Julien Houtou de Labillardière, apparently from a Tasmanian specimen. The specific epithet refers to the leaves: 'juniper-like'. It is widespread in south east Australia, being found in Tasmania, Victoria, New South Wales and the

Australian Capital Territory. It grows in a variety of habitats; for example, in Victoria it is found mostly in heathland or as an understory plant in moist forests.

I bought my plant from Plantbase nursery and it went into my garden in summer 2017. The advice in the indispensable Elliot and Jones (2002) is that it is an adaptable plant that will grow in a range of soils and conditions. Promising for growing it in the UK, but a bit of a headache when it came to deciding exactly where to put it. But having also read that it tolerates moderately heavy frosts (which is not the same as tolerating long periods of low temperatures) I settled for halfway down the garden (it's on a slight downhill slope) in a sunny spot with a bit of overhead shelter from adjacent plants. I also made sure I improved the drainage with grit before I planted it. It is now 70 cm tall and can apparently get to 1.5m in height, as well as spreading sideways by sending out suckers, though I have not (yet) observed my plant doing so.

Like many of the bush-peas *P. juniperina* has bacon and egg coloured flowers (photo front cover). They are small, but there are lots of them and they have a slight sweet fragrance. As its common name suggests the short narrow leaves are quite prickly, but that will only become tricky if my plant ventures onto the the nearby path.

In my garden it has turned out to be a plant of great forbearance. In early 2018 it sailed through some very strong and very cold easterly winds, dubbed the 'beast from the east'. Those winds were followed by an extended dry period during which I left my little bush pea to its own devices. One day in early summer I noticed that many of its leaves were wilted, and had turned an ominous shade of dirty beige. I've lost it for sure I thought. But no, a bit of judicious pruning and much watering saw it recover. (This episode reminded me that I have lost more Australian plants to lack of water than I have to cold!)

Being legumes, pultenaeas need the help of special bacteria to survive. Almost all legumes have growths on their roots called nodules which are inhabited by bacteria which 'fix' atmospheric nitrogen and pass this essential nutrient to the plant in a form which it can use. According to Elliot and Jones pultenaeas form a relationship with bacteria from the genus *Rhizobium* and don't grow (so) well in their absence. I haven't examined the roots of my plant for nodules - that might be testing its forbearance rather too much - but if I do get any suckers I will take a look. What I find could tell me something about the extent to which my bush-pea needs rhizobia to flourish in the northern hemisphere. It seems to me to be doing well, but I don't have anything to compare it with. In some of the species accounts, but not the one for *P. juniperin*a, Elliot and Jones do mention that lack of suitable rhizobia may be why the *Pultenaea* in question is difficult to grow.

Having apparently succeeded (so far) with one bush-pea I'd quite like to try more. One is *P. daphnoides*, the large-leaved bush-pea, which is another species widespread in the south eastern states. It has larger flowers than *P. juniperina*, but of a similar yellow and orange hue. Another species with relatively large flowers is *P. stipularis* Sm. (the type species), first grown in

England in 1792 by Alexander Murray in the Stockwell Garden of Benjamin Robertson. Murray provided James Edward Smith with the specimen he used to name the species. However it seems to me a doubtful candidate for outside cultivation in the UK, hailing as it does from coastal NSW. A third species that I fancy is *P. subalpina*, the rosy bush-pea, which has pink flowers and hails from the Grampians in Victoria. Unfortunately it's one of those that seem to be fussy when it comes to nitrogen-fixing bacteria. I wonder if anyone has tried to cultivate any of these?

Pultenaea is a relatively large genus and there must be other species that might take to cultivation here. Just how many species there are is a moot point. The online Flora of Victoria, a site I highly recommend and which I used to check that my plant is correctly named, recognises 126 species, but this total includes a species named *P. forsythiana* which most other states treat as belonging to *P. juniperina*. In fact, it was discovering this that led me, rather late in the day, to key out my plant. Fortunately for this article it keyed out as *P. juniperina*.

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Note: all websites accessed April or May 2020

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BITS AND PIECES

compiled by Judy Clark

Kennedia nigricans

In early April APS seed manager Janet Miller reported that her black coral pea (*Kennedia nigricans*) was in flower. It had been pretty much abandoned in her greenhouse for the winter but in April she felt it was fairly safe to bring it out and feed and water it properly; hopefully doing so will make it produce more flowers. She has three plants in one pot, set last year, grown outside until autumn and then put in the greenhouse without water over winter. Her garden is just 15 miles from east coast and it's nearly always windy so it will be trial and error to see what survives.

Seed germination: a postscript

Jeff Layman has added a postscript to his article in last December's Pentachondra (APS seed germination 2019, page 15), which shows that rewards come to those who wait! Jeff says: "Three seeds of *Hakea epiglottis* have germinated 10 months after sowing. I left the pots with ungerminated seeds alone over winter. They weren't watered, but may have had a little residual dampness as they

were in a covered propagator (no heat). A couple of weeks after I started watering again at the end of February I noticed some green appearing in the *H. epiglottis* pot. Unfortunately, none of the grevillea or other seeds have shown any signs of life."

Regenerating a native forest

Jan Michalak suggests *Fools & Dreamers: Regenerating a Native Forest* is a film that APS members with half an hour to spare will really enjoy watching. It can be found at happenfilms.com/fools-and-dreamers.

The producers describe it as "a free 30-minute documentary about Hinewai Nature Reserve, on New Zealand's Banks Peninsula, and its kaitiaki/manager of 30 years, botanist Hugh Wilson. When, in 1987, Hugh let the local community know of his plans to allow the introduced 'weed' gorse to grow as a nurse canopy to regenerate farmland into native forest, people were not only skeptical but outright angry – the plan was the sort to be expected only of' "fools and dreamers". Now considered a hero locally and across the country, Hugh oversees 1500 hectares resplendent in native forest, where birds and other wildlife are abundant and 47 known waterfalls are in permanent flow. He has proven without doubt that nature knows best – and that he is no fool."

It's not a weed, it's Australasian

A recent article in British and Irish Botany about *Cotula alpina* (alpine cotula), a species native to south east Australia that has made itself at home in some upland areas of England and Scotland, reminded me that there is another Australasian immigrant that members may be familiar with: *Oxalis exilis*, a small sorrel with yellow flowers and green leaves that is native to both Australia and New Zealand. I can only guess how it arrived in my garden - maybe with a purchased plant - but I do know that it's jolly persistent. But should anyone sniffily suggest to me it's a weed, as my garden is mostly southern hemisphere species I have the perfect response: "It's not a weed, it's one of my Australasians!"

Grevillea information

Jeff Layman found some interesting information in an oldish article from the USA on grevilleas in the Pacific northwest. It can be found at www.desertnorthwest.com/articles/grevilleas_revisited.html and seems to have been updated in September 2009.

Illustration acknowledgements

Skye Campbell Bancroft: page 21
Gill and Tim Burr: page 19, top and below left
Tony Cavanagh: page 31; page 32, above
Judy Clark: front cover; page 20, below right; page 32 , below right
Gary Firth: page 20, top
Maria Firth: back cover
Sue Kohler: page 22
Martin Krueger: page 10, top and centre
Jude Lawton: page 10, top and centre
Jeff Layman: page 9, below
Natalie Reynolds: page 20, below left
Hilary Spon: page 19, below right
Jeremy Spon': page 32, below left
Michael Sullivan: page 10 below left
Wikimedia Commons: pages 29, 30

The Australasian Plant Society

Minutes of the Annual General Meeting

Held at Lullingstone Castle on 16th November 2019

Committee Members Present:

Tom Hart Dyke - President
Robbie Blackhall-Miles - Chairman
Ben Ram - Webmaster
Judy Clark - Newsletter Editor
Jeremy Spon - Treasurer/Membership Secretary
Gary Firth and Maria Firth – Events Co-ordinators
Jude Lawton - Conservation

Other members present:

Paul Reddy, Paul Spracklin, Graham Blunt, Mark Bennett, Steve Harding, Adrian Cooper, David Renouf, Dilys Renouf, Jeff Layman, Mark Robinson, Jennifer Robinson, Clare Reaney, Michael Sullivan, and Hilary Spon (taking minutes.)

1. Apologies for absence.

Apologies had been received from Janet Miller (Seed List Manager), Sue Norburn, James and Julie Taylor, Chris Brickell, Hannah Sindall, Simon Olpin, Keith Larkin, Graham Sumner, Beth Smith, David Tigwell and Mary Thomas.

2. Introductions.

After a welcome from Tom, Robbie asked everyone present to explain briefly who they were and what their main interests were

3. Minutes of Last Meeting.

These had been published in the May 2019 edition of Pentachondra, and were approved.

4. Election of Officers.

a) Tom Hart Dyke said he was willing to continue as President, and the meeting agreed unanimously that he should do so.

b) Committee. As all members of the committee were willing to continue in post, the meeting agreed to re-elect them en bloc.

5. Committee Reports.

a) Treasurer's Report (Jeremy Spon)

A provisional report (up to 31st October) was circulated and although there were several significant items of expenditure expected before the end of the year, a small surplus at the end of the year was projected. Membership stood at 190, exactly the same as the same date last year. The relatively low loss of members is mainly due to automatic renewals through PayPal and standing orders. A breakdown of the distribution of members around the country was made available; a large percentage are in the South-East.

b) Newsletter Editor's Report (Judy Clark)

Judy said that she was still receiving a good supply of articles, but nobody has volunteered to take over as editor; she commented that she would like to retire some day! Judy had brought a copy of the Eucaflip eucalyptus id chart, which she recommended as it covers most of the species most likely to be seen in the UK. It was agreed Judy should look into ordering some copies to be sold to members.

Robbie noted that Mona Abboud had emailed him about her forthcoming book on Corokias, and said that information about this should be passed on to members.

c) Seed List Manager's Report

Janet had provided a written report which was read out by Robbie. Orders had been more spread out this year; most people had received their first choices, and most orders had included banksias, which meant our stock of these needed replenishing. The cost of sending orders to Europe had risen to £2.80, so we would soon need to consider charging European members more for their seed.

Judy said some of the seeds she orders are intercepted in the post by Plant Health inspectors, which causes delays, and Customs sometimes levies VAT on parcels with a value over £15, though not in all cases. It seems to be pot luck whether parcels are intercepted or not. She also noted that Nindethana's minimum order value was now around £300.

Robbie said that imports of seeds of acacia and eucalyptus, plus all Solanaceae, were likely to be restricted in the near future, due to plant health concerns. We should therefore not really be importing these as (under the new constitution) we are honour bound to educate members regarding the risks of importing anything that might pose a risk to our horticulture or farming.

d) Website Manager's Report (Ben Ram)

Ben said little had changed; the website was still going well, but he would always welcome new content. The idea of running a forum on the website was raised, but this had already been considered and decided against. The Treasurer reported that currently the website was costing about £90 a year for hosting fees; there was an offer of free hosting which Ben would discuss further.

Mark Bennett asked if we could have a plant section in the members area of the website to link people to someone who grows and sells a particular plant. This would not be for profit, but simply to put the relevant members in touch with each other. Ben asked him to formalise the idea and send an email to him.

Jeremy commented that we recruit nearly all our members through the website, often as a result of people searching for information about plants.

Judy asked if anyone was willing to help scanning the remaining old Pentachondras that were not on the website; Mark Bennett said he would get in touch about this.

e) Social Media (Robbie Blackhall-Miles)

Robbie reported that he had removed himself from Facebook, but that Sean Boast at Abbotsbury was keeping an eye on our Facebook group, and happy to continue doing so.

We have 821 followers of our Twitter account (@GondwanaPlants, Judy being the most frequent tweeter). Robbie asked everyone with a Twitter account to remember to retweet tweets as this has led to new members joining in the past.

g) Events (Gary Firth)

The visit to Doug Smith's garden and to County Park Nursery was a really good day, with a good attendance and good weather. The Devon trip to Rosemoor and Beth Smith's garden had to be cancelled because of low numbers; people don't book until very late on so Gary has to guess likely attendance; he really needs to know about 4 weeks in advance if people are coming.

A visit was proposed to Sussex gardens during May (2nd or 16th): a.m. to APS member, Sue Norburn's garden, and p.m. to Leonardslee Garden, which re-opened in 2019. The latter now has a number of Australasian beds, and there is a new head gardener who was previously at Nymans.

RHS Specialist Societies Show on 20/21 June at Wisley - Gary suggested we have a joint display with the Hebe Society. There was good footfall last year and the organisation of it has improved. Gary will get in touch with people who are interested in getting involved; we can also sell plants there. The RHS has also invited Societies to mount displays at other times in the year next to the Great Glasshouse; it was agreed we would consider doing this in a future year. In addition, the APS would continue to be represented at the Plant Societies Workshops at Wisley.

Robbie suggested we could look into having an Australasian Plant Show and could invite other societies which would increase exposure. Tom suggested such a Show might be held at Lullingstone, but unfortunately we don't really have the funds for the sort of marquee that would be required.

It was agreed we should try and attend either the Great Dixter or Malvern Autumn Shows; we had a lot of help at Great Dixter last time, but Malvern has more potential for getting new members. Robbie will contact Fergus Garrett about Dixter; it is important there are enough people and plants to put on a good show over the 2 days (the only problem with Autumn Shows being that there is not much in flower.) A notice would need to go in Pentachondra to encourage members to start growing plants for the shows.

It was pointed out that in 2020 it will be 250 years since Banks and Cook arrived in Australia so we should be highlighting that. We will try to get in touch with the Australian Embassy but we need to make sure we are conscious of the difference between commemorating and celebrating with anything we get involved in.

Judy said that Abbotsbury would be delighted to show us round during the first couple of weeks in July; Judy would liaise with Sean Boast about this.

If everything discussed were to happen it would be quite a full schedule, but Robbie mentioned that he was still keen on a return visit to Chester Zoo.

Next Year's AGM

This year will be the 5th consecutive year at Lullingstone so we should consider having an AGM somewhere further North. Birmingham Botanic Gardens, Chester Zoo or Sheffield

Botanic Gardens were all possibilities. November is not a fixed time of year for the event and it was agreed that the committee should try and find an alternative time and venue. Gary also suggested that we might combine the AGM with a small show.

Robbie noted that we need to put more emphasis on encouraging people to do things/take part. Not many people join the Society for its events, but we want people to be more actively involved/engaged in the Society. He asked that if there is anybody who would like to help organise or get involved in an event that they please speak to Gary or him. In any case, he urged everyone to support Gary and Maria. (A member from the Midlands had volunteered to help organise events there, but it is an area, unfortunately, where there are not that many members.)

6. Any Other Business

a) Grevillea Dispersed National Collection. Jude Lawton said she has set up a Plant Heritage database and will shortly be getting in touch for information about grevilleas. Members were asked to let her know if they grow grevilleas, even if only one plant.

b) Constitution. The proposed new constitution had been circulated to members for comment; a few minor changes had been incorporated as a result, and the new constitution was unanimously adopted. It will be made available on the website as soon as possible, and in the May edition of Pentachondra.

c) Applications for Support from the Society. Robbie pointed out that this is mentioned in the constitution in the sense of financial support. He wondered whether we are in a position to give such support. Jeremy commented that currently our reserves stand at £11,117, so yes, we do have spare money and it would be a good idea to do something productive with it. The question of how we go about making people aware of this was then discussed, and it was agreed that the committee need to consider this further, but that if any member was aware of suitable projects or activities they should contact a committee member.

d) Jan Michalak had wanted members to send photos of New Zealand plants in the UK; only one photo had been received for sending to NZ. Judy will mention this in Pentachondra again, with a request to send photos to Jan.

e) Ben Ram suggested that next year the APS should have a photo competition; this could be a good way to get photos for the website. It would be an online competition, with one category – Australian plants in gardens in the Northern Hemisphere. There would need to be a cut off date, with all the photos put on the website and all members of the Society able to vote for the ones they think are the best. The top 3 or 5 could be printed in Pentachondra; a banksia print might be a possible prize.

8) Conclusion

Tom was thanked for once again hosting the meeting and organising the food, and the meeting closed at 12.00 midday. Plants were available for sale or swapping. Tom and his mother kindly made the whole house available for those who would like to look round, then lunch was provided from 12.30 followed by a tour of the garden and greenhouses.

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***Acacia pravissima* in the glasshouse at Leonardslee Gardens**