APS Australasian Plant Society

PENTACHONDRA

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Karkalla

AUSTRALASIAN PLANT SOCIETY

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

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NEWS

From your chairman

Following our recent AGM, I am pleased to report that I have been elected as Chairman of the Australasian Plant Society (APS). I will retain my role of Events Organiser for the society as well as various responsibilities within Plant Heritage and the Hebe Society.

The APS and the Hebe Society have complementary roles. The Hebe Society includes other New Zealand genera within its remit in addition to hebes while the APS covers all Australasian plants. The two organisations have worked together on a number of projects in recent years and hopefully we will be able to build upon this even further.

Steve Harding (Hebe Society chairman and an APS member) and I are already working on a joint displays for the Specialist Plant Society Show at RHS Wisley Gardens and a special display in Wisley's new Hilltop building (see the events section for dates and details). We are looking to expand this cooperation (which can only be good for both societies) to cover joint meetings and garden visits. With this in mind we have extended an invitation to Hebe Society members to join the APS on the visit to Abbotsbury Subtropical Gardens in Dorset.

Judy Clark is also hoping to organise an informal visit to Wakehurst Place Gardens in Sussex later this year and I am investigating the possibility of attendance at other garden shows in the Autumn. We will keep you informed of developments. Who knows, perhaps one day even a joint display at Hampton Court!!

Gary Firth

Gill Groombridge

We are very pleased to welcome Gill Groombridge onto the APS committee. Gill, whose day job is Business and Shows Manager for Plant Heritage, has very kindly offered to take on the Twitter account for the society as well as organising any future zoom meetings. Gill can be contacted at socialnetwork@anzplantsoc.org.uk.

For newer members the APS Twitter account is @GondwanaPlants; please tag us if you post anything about Australasian plants.

Events 2022

RHS Wisley Specialist Plant Society Show 2022
Saturday and Sunday 18th and 19th June

The APS and the Hebe Society are joining together to put on a display and plant sale at the RHS Specialist Plant Society Show. The 2020 and 2021 events were cancelled but in previous years this show has proved an excellent way to promote the APS and show a wider audience some of the wonderful Australasian plants that can be grown in the UK.

If you are interested in helping at the show and/or can provide plants for the display please contact **Gary Firth** at **meetings@anzplantsoc.org.uk**. The Wisley entrance fee is waived for all helpers.

Abbotsbury Subtropical Gardens, Dorset
Saturday 9th July

Abbotsbury Subtropical Gardens near Weymouth in Dorset are one of your editor's favourite places to see Australasian plants. The variety is huge and includes the National Collection® of the New Zealand genus *Hoheria*.

There is continual experimentation to see what will thrive in the ground in this admittedly mild location, so you never know what you might come across. Abbotsbury is also noted for its rhododendrons and hydrangeas, camellia groves and magnolias, not to mention stunning views of the Jurassic Coast and Chesil Beach. Plus there is a great specialist plant nursery, parking is free, and adult entry is only £12.

APS member Sean Boast, who is in charge of the Australasian areas and does a lot of propagation, has kindly agreed to show us round. The guided tour will start at 1.30 and we will meet just inside the entrance to the Gardens proper. Prior to this we will meet in the car park from 12.00 for a plant swap followed by lunch (in the restaurant or bring your own).

Contact **Judy Clark** at **editor@anzplant.soc** for further information. Please let her know if you plan to attend.

In the meantime, if you want to get an idea of what Abbotsbury has to offer then try http://abbotsbury-tourism.co.uk/gardens/gallery/.

Members' Gardens, Mid Sussex Saturday 17th September

It is always a pleasure to visit members' gardens and we will be visiting new member Steve Bridger's Burgess Hill garden. Although it currently has a limited number of Australasian plants (including some very well grown dicksonias) Steve's is one of the most impressive small tropical gardens that Gary has seen. Steve's description below does not do it full justice; you have to see for yourself.

'*An interesting tropical garden filled with unusual and rare exotic plants. A number of established tree ferns, palms and bamboos along with many seasonal specimens. We also have a large conservatory filled with rare and hard to come by plants as, well as a garden room housing tropical climbers, ferns, and jungle cacti*.'

Following this there will be a visit to at least one other local garden, including Gary and Maria Firth's packed garden in Haywards Heath.

Please contact **Gary Firth** at **meetings@anzplantsoc.org.uk** for further details.

Great Dixter Autumn Plant Fair 8th and 9th October

We have been invited to have a plant stall at the prestigious Great Dixter Autumn Plant Fair on the weekend of the 8th and 9th of October. This is regarded by plant connoisseurs as one of the best plant fairs in the country with many specialist nurseries attending, including from overseas.

If you are able to help either by supplying Australasian plants for sale or by helping on the stand please contact Gary Firth at **meetings@anzplantsoc.org.uk**.

Do we have your current email address?

If the APS does not have your current email address you run the risk of missing out on up to date information about events and important news. When emails were sent out about the AGM several addresses were not recognized, which meant that those people will not have received the information. To check that the APS has your current email address please contact **Jeremy Spon** at **membership@anzplantsoc.org.**

RHS Wisley Hilltop Display Saturday 8th October

This display, which will be in the new centre of horticultural excellence at RHS Wisley, Hilltop, is another joint effort with the Hebe Society, and provides another opportunity to promote the APS.

Unfortunately the event falls on the same weekend as the Great Dixter Autumn Plant Fair so we will have to split our forces. Steve Harding, Chair of the Hebe Society (and an APS member) has kindly offered to set up and man both displays but would greatly appreciate help from APS members. If you are interested in helping on the day and/or can provide plants for display please contact **Gary Firth** at **meetings@anzplantsoc.org.uk**. All helpers get free entry to Wisley and members of the APS and the Hebe Society who are not RHS members will get entry to the gardens on the day at the reduced price of £7.50.

AGM 2023

It was agreed at the AGM held in February that future AGMs would also be held early in the year as this fits better with the APS financial year. So we hope that we will be able to hold the next AGM in person on Saturday 25th February 2023 at Lullingstone Castle in Kent.

Planning future events

Could you, with help from the committee, host or organise an APS meeting? In the past we have visited public parks and gardens, specialist nurseries, and private gardens. In particular we are very aware that the all the events planned for 2022 are located in the south of England. One reason for this bias is that almost all your committee members hail from the south of England and we are much less familiar with places that APS members might like to visit in other parts of the UK. Organisation is also much easier if there is a local person to help.

If you have any ideas for meetings for 2022 or 2023 **Gary and Maria** will be very pleased to hear from you at **meetings@anzplantsoc.org.uk**.

Photography competition

The APS photography competition is on again, but with some new rules that we hope will prompt more entries.

Rules

- Only photographs taken by current APS members and not used elsewhere will be accepted.
- Entries are limited to two per member per category (see below).
- Significant photoshopping of images is discouraged.
- Photographs can be submitted as digital copies or prints no larger than preferably A4 size (and no larger).

Send digital entries, as jpeg files, to **editor@anzplantsoc.org**, to arrive no later than two weeks prior to the AGM on 25th February 2023. Digital entries will be printed (A4) and brought to the AGM.

Prints (no larger than A4) should be sent to Judy Clark, 36 Collier Road, Hastings, East Sussex TN34 3JR, to arrive no later than the day before the AGM, or brought to the AGM by the photographer.

Photographs will be displayed at the AGM with an anonymous id and attendees will be able vote for their favourite image in each category.

The competition is free to enter and there are prizes for each category. Members do not need to be present at the AGM to compete.

Categories

1. Individual plant of Australasian origin (whole plant not required) growing in the northern hemisphere.
2. Group of Australasian plants in garden/landscape (anywhere in the world).
3. Macro of diagnostic features of an Australasian plant (eg close up of leaf/flowers).
4. Image of plant collector/gardener known for collecting/ cultivating Australasian plants in the northern hemisphere.

Please note that while copyright of images will remain with the photographer the APS claims the right to exhibit the entries, and to use them to further its aims generally and to promote the APS and its photography competition. This includes publishing photos in APS publications, on the website, or on social media. All published photographs will be credited. The APS also claims the right to edit or use images in combination with others.

Vale

The Society is sad to report that longstanding member Gordon Hansen died recently. Regarding Australasian plants his focus was on inadvertent introductions to England via wool waste and he wrote about these wool aliens in Pentachondra 49 (December 2012, p. 16).

Have you paid your subscription?

If you have not yet paid your 2022 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 may have done so after the editor received the membership list.

From the Treasurer

If you remember reading this in the last edition of Pentachondra you would be right! It is repeated here in the hope that more members will respond.

Over the last few years, the APS has become increasingly dependent on PayPal to collect membership subscriptions and other payments. However, members may not be aware that PayPal deducts a fee from every payment received, a fee which is rather higher than that charged by banks. For every £15 annual subscription the APS loses 74p. Last year, 2021, PayPal deducted fees totalling £90.83 from our income. As more and more new members join online, and pay using PayPal, these fees will increase.

There is also a potential problem with money laundering regulations - yes, apparently these do apply to us! If there are perceived deficiencies in the information that PayPal considers is required to comply with these regulations our account could be suspended. This has happened to other PayPal users. If it happened to us we would be unable to collect members' subscription payments, with potentially disastrous effects on our Society's finances.

In view of this, the committee would like to reduce our dependence on PayPal by encouraging members to consider switching to other methods of payment, such as online bank transfers or standing orders. In the future we will also be looking into using Direct Debit to collect subscriptions, and enabling new members to pay with credit or debit cards outside of PayPal.

I am therefore asking members who currently pay their subscriptions via PayPal to please consider setting up a

standing order (that is, a recurring annual payment) from their bank account to replace their PayPal payment. (**NB** This only applies to members resident in the UK as PayPal remains the only practical way for us to take payments from overseas members.) If you do not wish to set up a standing order using online banking the Treasurer can supply a form to be sent to your bank.

As an incentive to make this change, the first payment taken under the standing order can be set up for January 2023, regardless of when renewal is due during 2022. This means that any member setting up such a standing order will get free membership for anything up to eleven months.

Alternatively, if a members prefers their membership not to be renewed automatically, they can ask for their PayPal recurring payment to be cancelled, and pay at the beginning of the year using online banking when they receive a renewal reminder in the December issue of Pentachondra. Members who currently pay by cheque may also find it more convenient to pay by bank transfer.

The banking details needed to set up payments are as follows:

Bank: Natwest
Account Name: Australasian Plant Society
Sort Code: 60-19-24
Account Number: 29872677

If you have any queries, or need a standing order form, please contact APS Treasurer **Jeremy Spon** at **membership@anzplantsoc.org.uk**). And if you do set up a standing order please notify the Treasurer so that your membership details can be updated and any PayPal payments halted.

Jeremy Spon

Seed list news

After various trials and tribulations the APS has obtained new stocks of seed. The 2022 seed list and an order form are enclosed with this newsletter. Please be patient after sending in your order as it takes some time to complete each order and we only have one seed manager, the wonderful Janet Miller.

Currently we are unable to send seeds directly to European Union countries unless the seeds are accompanied by a phytosanitary certificate. Efforts are being made to get this regulation changed for small amounts of seed but in the meantime if you reside in Europe please contact Janet before ordering.

Could you contribute to Pentachondra?

A big thank you to everyone who has provided material for this issue. It is members' contributions that really make our journal as there is nothing like first-hand experience for adding to our knowledge of growing Australasian plants in the northern hemisphere.

Essentially, the only thing required of articles for Pentachondra is that they have some connection with Australasian plants and their close relatives, 'Australasia' including Australia, New Zealand and neighbouring islands. Length is not important, and if you don't fancy writing an article photographs on their own are fine but please include captions. If you are not confident about writing then I can put together an article from information you supply; this issue contains two such pieces, both resulting from photos posted on

Facebook. If you have any questions please don't hesitate to contact Judy at enquiries@anzplantsoc.org.uk

The deadline for the next issue is **31st October 2022**. Please send contributions as word documents or similar (**not** as a PDF) and please do **not** compress photographs.

Rare grevillea donated to Kew Gardens

APS member Jeff Layman is almost certainly the only person in the UK growing the rare and endangered *Grevillea wilkinsonii*, the Tumut grevillea. Or rather he was. Jeff has painstakingly been taking cuttings from his plant and recently delivered a flourishing specimen to the Royal Botanic Gardens Kew. It is currently in residence in Kew's quarantine house, but hopefully it will eventually be planted where visitors can see it.

On the IUCN Red List the Tumut grevillea is classified as critically endangered. It is restricted to a very small area in the New South Wales South-west Slopes bioregion where it is estimated that only about a thousand plants remain .

That Jeff is growing *G. wilkinsonii* at all is something of a miracle (see Pentachondra 55, December 2015, page 6.) The seed was actually a hitchhiker in a packet of APS seed of another species. Jeff , a longtime grower of Australian plants, recognised that the seedling that emerged after sowing in 2009 wasn't what it said on the envelope. It grew slowly and he nurtured it for years before it flowered and revealed itself (photo opposite**).**

Jeff hopes that this story will inspire others to realise that anyone can grow a plant which could end up (arguably) at the finest botanic garden in the world!

Mona's garden to live on

At the end of last year APS member Mona Abboud tied the knot with Perennial (photo opposite). This charity, which used to be known as the Gardeners' Royal Benevolent Society, supports people who work in horticulture when times get tough.

Mona has signed an agreement which means Perennial will take over her garden in the future. In the meantime their mutual support will continue with fundraising activities and the promotion of Mona's New Zealand plants, in particular her Plant Heritage National Collection® of *Corokia*.

Mona's garden will be Perennial's fourth, but its first domestic garden. It joins York Gate, Leeds; Fullers Mill, Suffolk; and The Laskett, Herefordshire.

Mona began her garden in 2000 and it is home to unusual Australasian and Mediterranean plants. Over the years she has contributed a number of articles to Pentachondra; see issues 54, 55, 57, 60 and 65 which can be found in the members area of the APS website.



DISPERSED NATIONAL COLLECTION OF TASMANIAN PLANTS

Jude Lawton

The APS, as a member of Plant Heritage, is proposing a Dispersed National Collection (DNC) of Tasmanian plants, provisionally titled 'Tasmanian Endemics and their



Mona Abboud with Perennial Chief Executive Peter Newman and Head Trustee Paul Rochford

Grevillea wilkinsonii



Some Tasmanian endemics







Clockwise from top left:

Callistemon viridiflorus **(**synonym ***Melaleuca virens*****)**

Ozothamnus ledifolius

Lomatia tinctoria

Leptospermum nitidum

Diplarrena latifolia





Cultivars'. Endemic species are ones which are found growing naturally only in Tasmania, as opposed to native species which also grow in other states. All the photographs are of Tasmanian endemic species.

A DNC contains plants owned by several people, including private gardeners, nurseries, gardens and botanical institutions, rather than an individual Collection Holder. In our case, it enables us to conserve a much larger range of plants than is practical for one person. Tasmania has 527 endemics, some of which are endangered or under threat.

Because Plant Heritage covers plants grown in the UK and Ireland, members in other countries are unable to be Collection Holders, but that does not mean you cannot take part informally. You may have knowledge and expertise which we would greatly value, and we would not want to lose that.

The work involved for our members should not be arduous. You would need to keep a note of the individual plants you have and keep us up to date with any changes, but this can be quite informal; all the documentation and official record-keeping would be done centrally. If we need more information we can email you with specific questions.

This is still in the early planning stage, so there is plenty of time to look around your gardens for possible plants. It may help to look at the species lists in tables 1 and 2. The first contains Tasmanian endemic species that are on the current APS seed list, or have been offered in the past. The second comprises species that are native to Tasmania but not endemic; that is they are found naturally in other states too. Seed of these species was supplied by Wildseed Tasmania so we can assume they are from authentic Tasmanian stock.

The scope may change in the future, perhaps to include such species which are also found in SE Australia. It is important that we do not rush into decisions now and discover later that we could have done better.

Meanwhile, please consider taking part, whether by growing the plants or sharing your knowledge. We will let you know of our progress in the next edition of Pentachondra.

Table 1:
Tasmanian endemic species on APS seed list (some species no longer be available)

* supplied by Wildseed Tasmania

Scientific name	Common name
Acacia pataczekii	Wally's wattle
Acacia riceana	Arching wattle
Allocasuarina monilifera	Necklace sheoak
Allocasuarina zephyrea	Tasmanian sheoak
*Anopterus glandulosus**	Tasmanian laurel
Asterotrichion discolor	Tasmanian currajong
*Athrotaxis selaginoides**	King Billy pine
*Bellendena montana**	Mountain rocket
*Bedfordia linearis**	Slender blanketleaf
Billardiera longiflora	Purple appleberry
*Blandfordia punicea**	Christmas bells
*Boronia citriodora**	Central lemon boronia
*Cenarrhenes nitida**	Native plum
*Celmisia asteliifolia**	Silver snowdaisy
Diplarrena latifolia	Western flag-iris
Eucalyptus amygdalina	Black peppermint

Eucalyptus archeri	Alpine cider gum
Eucalyptus barberi	Barber's gum
Eucalyptus coccifera	Snow peppermint
Eucalyptus cordata	Tasmanian silver gum
Eucalyptus gunni	Cider gum
Eucalyptus johnstonii	Yellow gum
Eucalyptus morrisbyi	Morrisbys gum
Eucalyptus nitida	Western peppermint
Eucalyptus pulchella	White peppermint
Eucalyptus risdonii	Risdon peppermint
Eucalyptus rodwayi	Black swamp gum
Eucalyptus subcrenulata	Alpine yellow gum
Eucalyptus urnigera	Urn gum
Eucalyptus vernicosa	Varnished gum
Gaultheria tasmanica	Tasmanian waxberry
Leptospermum glaucescens	Smoky teatree
Leptospermum grandiflorum	Autumn teatree
Leptospermum nitidum	Shiny teatree
Leptospermum riparium	River teatree
*Lomatia polymorpha**	Mountain guitarplant
Melaleuca virens (syn. Callistemon viridiflorus)	Prickly bottlebrush
*Microcachrys tetragona**	Creeping pine
*Milligania densiflora**	Silky milligania
*Orites revolutus**	Revolute orites
*Phaerosphaera hookeriana**	Drooping pine
*Richea acerosa**	Slender candleheath
*Richea dracophylla**	Pineapple candleheath
*Richea gunnii**	Bog candleheath
*Richea pandanifolia**	Pandani
*Richea scoparia**	Scoparia
Telopea truncata	Tasmanian waratah
*Trochocarpa thymifolia**	Thymeleafed purpleberry
Veronica formosa	Common speedwell bush

Table 2:
Species native to Tasmania but not endemic, seed of Tasmanian provenance supplied by Wildseed Tasmania for APS seed list 2017 and 2019 (some species no longer available)

Scientific name	Common name
Arthropodium milleflorum	Pale vanilla-lily
Arthropodium minus	Small vanilla--lily
Atherosperma moschatum	Sassafras
Baeckea gunniana	Alpine heathmyrtle
Baloskion australe	Mountain cordrush
Boronia anemonifolia	Sticky boronia
Carpobrotus rossii	Native pigface
Correa alba	White correa
Daviesia latifolia	Hop bitterpea
Dianella tasmanica	Blue flaxlily
Disphyma crassifolium	Roundleaf pigface
Drosera arcturi	Alpine sundew
Drosera binata	Forked sundew
Drosera peltata ssp. peltata	Pale sundew
Einadia nutans	Climbing saltbush
Epacris gunnii	Coral heath
Epacris impressa	Common heath
Euphrasia gibbsiae	Striped tufted-eyebright
Goodenia ovata	Hop goodenia
Grevillea australis montana	Southern grevillea
Linum marginale	Native flax
Micrantheum hexandrum	River tridentbush
Notoelaea ligustrina	Native olive
Olearia myrsinoides	Silky daisybush

Ozothamnus obcordatus	Yellow everlastingbush
Patersonia fragilis	Short purpleflag
Ricinocarpus pinifolius '	Wedding bush
Sprengelia incarnata	Pink swampheath
Stylidium graminifolium	Narrowleaf triggerplant
Teucrium corymbosum '	Forest germander
Veronica derwentiana	Derwent speedwell
Xyris operculata	Tall yelloweye

ECO PRINTING

Louise Drosdzol

I grew up on an indigenous plant nursery in the province of Kwazulu-Natal in South Africa, so plants and nature were the foundation for my early learning and development. I emigrated to the UK seventeen years ago and for the past four years I have been creating textile designs and prints using eco printing. The process uses only leaves and plant materials, steam, and pressure to print the natural plant dyes onto fabric.

Eco printing was developed by an Australian, India Flint (**www.indiaflint.com/ecoprint**) but has been adapted by textile artists all over the world, ideally using local and indigenous plants. However eucalyptus is still the holy grail, as some species achieve brilliant orange prints on wool and silk. It feels like magic.

For a long time I have been using natural and plant dyes that I grow and forage, so the evolution to eco printing was natural. It relies a lot on the tannin content in plants as well as the natural dyes, so high tannin plants are always on my 'to grow' list. Oak, blackberry, walnut and cornus are my local favourites.

I joined the Australasian Plant Society a year ago as I wanted to learn more about growing *Eucalyptus*, large leaved *Grevillea* and some of the South African fynbos plants in the UK. Currently I am in a flat so I have my eucalypts in Airpots, waiting for a move to a garden.

There has been a study in Australia on the dyes in *Eucalyptus* by Sally Blake in association with the Australian National Botanical Garden (**sallyblake.com/eucalyptus-dyes-1**) which is an invaluable resource. It was through her recommendations that I have bought *Eucalyptus leucoxylon* ssp. *rosea*, *E. approximans*, *E. parvula*, *E. viminalis* and *E. cineria*. Some are utilised for their bark and some for leaves and buds. They are growing with varying success, but I am sure that they will improve when planted into a garden.

Eco printing is not an exact science; just like wine, there are so many factors that will affect the results: the age of the plant, the season, the weather, the soil that it is growing in. So even though I hope that a plant will print a certain way, I can never be certain. I enjoy this natural element of chance in my work. However, it does mean that I must do extensive tests to be sure that my final piece will be successful. As you can see in the examples on page 13, I create background colours using natural dyes, such as the deep blue logwood silk scarf printed with grevillea leaves.

I have started and run two dye gardens, one with our community allotment society and another at the Riverhouse Barn Arts Centre in Walton on Thames,

where I teach Eco printing and Natural Dye workshops.

I am very keen to set up a relationship with a large garden to create a 'library' of prints from the plants in the collection and run workshops for visitors, so if anyone would like to collaborate, I would love them to contact me. Last summer I had the opportunity to teach at Writtle Agricultural College in Essex, and their tree collection was a brilliant testing site. The students made the most of the available plants and produced beautiful work.

If you would like to find out more about eco printing or have advice on plants, please see my Instagram account **@lubhelutextiles** or email me at **louise.drosdzol@gmail.com**.



ANCIENT CONIFERS

Malcolm Pharoah

This article was first published in the Devon Plant Heritage Group newsletter.

Conifers don't seem to be too popular with people these days. I suppose it has a lot to do with leylandii, the scourge of suburban gardens and property disputes. It's a shame really as there are many beautiful and decorative forms; they are evergreen and give colour to gardens in the deep mid winter when so much else is drab and colourless.

It was a different story millions of years ago when the earth was colder and wetter than it is now. Conifers and tree ferns dominated the landscape, a landscape they shared with dinosaurs, at a time when flowering plants had not yet evolved. As the world warmed and became drier so the flowering plants spread and developed and coniferous plants slowly receded into areas where they could survive. This continues to this day.

I suppose one of the first trees I became aware of when I was starting out in horticulture was the monkey puzzle tree, mostly because of its name. The tree was at the height of fashion in Victorian times when a craze for creating impressive avenues of monkey puzzles on large estates had created sufficient demand for collectors to supply seed in bulk.

The origin of the name monkey puzzle is British, occurring not long after it had been introduced into this country from about 1850. The story goes that a barrister, visiting a garden in Cornwall where the owner had paid the extravagant sum of 20 guineas for his specimen, reportedly said that "*it would puzzle a monkey to climb*", and a terrific piece of marketing was born. *Araucaria araucana*, to give its proper name, is a member of the Araucariaceae. There are only two genera in the family, namely *Araucaria* and *Agathis*, at least there were until 30 years ago when another was discovered, but more of that later.

Araucaria as a genus has about 19 species of evergreen trees found in Oceania, Australia and South America. *Araucaria araucana* itself is native to the foothills of the Andes and I was very fortunate several years ago to see them in the wild on a trip to South America with the Alpine Garden Society. On a dirt road on the border of Chile and Argentina we came across a stand of maybe twenty or thirty ancient specimens. Goodness knows how old they were but they can live to well over 1000 years in their wild habitat. These gnarled, wizened trees made an impressive sight with the Andes in the

Eco Prints





Clockwise from top left:

Silk scarf: grevillea on logwood background

Wool shawl: close-up of eucalyptus print

Wool scarf: eucalyptus with logwood background

Silk scarf: eucalyptus bark and leaves







left:
Malcolm Pharoah standing in front of Tane Mahuta or Lord of the Forest, with a trunk girth of 14 metres and height of 52 metres.

below
Huon pines by the Huon river



background where a couple of active volcanoes were spewing ash and smoke into the atmosphere. They are not the only member of the Araucariaceae family to live a long time. Up in the northland on the North Island of New Zealand lives the kauri, *Agathis australis.* These *Araucaria* relatives only grow in this warmer part of the continent, but do they grow!!

When I retired from Marwood Hill Gardens seven years ago, I went to New Zealand's North Island and was determined to see these ancient, giant trees. It's quite a drive up from Auckland and I was surprised to see lots of tourists heading up there as well. Because of the sheer number of visitors and the problems of compaction of the soil around the tree roots, the Forestry Department had constructed a series of raised walkways to see and view the trees.

You know the expression that young people have, as 'awesome, awesome', well you haven't seen anything awesome till you gaze up at these wonders. They literally stop you in your tracks. You look at the size of the base of the tree, then your eyes slowly move up to the top. The amount of life and habitat that must exist in those upper branches way up in the sky will be phenomenal: birds, mammals, plants, lichens, a whole living tapestry of life.

There are two trees both over 2000 years old, the largest called 'Tane Mahuta' by the Maoris, or 'Lord of the Forest', with a trunk girth of 14 metres and height of 52 metres. The photo opposite shows me standing in front of it. On your way to see them you walk past 1000 year old trees and don't even give them a second glance.

The Kauri nearly became extinct due to the high quality of wood it produces in the furniture business. In the late 1800s and early 1900s a large industry was involved in sawing down and using these trees. A resin that bleeds from the trees if the bark is damaged was also collected as it makes an excellent varnish. When it dries the resin leaves a gum deposited on the ground. Thousands of prospectors known as 'gum-diggers' descended on the area and started excavating nuggets which for 50 years became New Zealand's principal export, above wool, gold or timber. It wasn't until just after the second world war that varnish and lino makers found synthetic substitutes and the market for kauri resin collapsed.

Looking out over farmland in the north of New Zealand now it's hard to believe that just 100 years ago gum digging was the main industry underpinning the prosperity of the country, and harder to believe that years before, kauri forests covered 6,000 square miles. Today they are a prized foundation of the Maori nation as well as a huge part of the tourist industry in New Zealand.

As I said before, there were only two genera in the Araucariaceae until 1994, when a National Park Ranger, David Noble. abseiled into a remote canyon in the wilderness that is the Wollemi National Park at the edge of the Blue Mountains in New South Wales, Australia. There he found a stand of 20 to 30 conifer trees which no-one could identify. The dramatic discovery of an evolutionary line thought to be long extinct is even more remarkable with these tall trees growing only 70 miles from Sydney, Australia's largest centre of population.

At first it was thought to be an *Araucaria* but once a female cone was obtained – by the remarkable achievement of dangling a man on a rope attached to a hovering helicopter –

it became apparent that it was not an *Araucaria* or a member of the other genus in this family, *Agathis;* it must be an unknown genus. The female cone proved important. In *Araucaria* the ovule or seed is fused to the seed scales whereas in *Agathis* the ovule sits free on about a forty-five degree angle attached to just one end of the seed scale. This cone was sitting proud like *Agathis* but, because all other known information pointed to it being an *Araucaria*, it was apparent that a new genus had been found.

Several years before the trees had been found, pollen of an unknown plant had been discovered in large quantities in various locations. It was thought to be from an extinct species and dated as living 90 million years ago. Interestingly, these locations were in Antarctica and in the central heartland of Australia, now a huge and developing desert. With the availability of the pollen from the newly discovered trees, it was soon found that the pollen was identical, and indeed the wollemi pine (*Wollemia nobilis*) had existed in Antarctica until it became too cold to grow, and had existed in large areas of Australia until it became too hot. The trees had retreated to these three canyons in the Wollemi National Park as a final refuge where conditions were amenable. It grows in very poor acid soil: pH 4.5 sandstone in a ferny warm temperate rainforest.

One of the main features of the tree is its ability to produce multi-stemmed trunks. Dormant buds may sprout along the trunk from the base. This coppicing effect results in large old plants with multiple trunks of different ages. This may be a defence against damage from drought, fire or rock fall in the canyon.

The story of the tree took another dramatic twist when it was discovered that the DNA of all trees in the wild was exactly the same. The only example where the same DNA exists are identical twins or cloned subjects (such as cuttings or grafted plants). The original trees must have grown from seeds (which means they should all have different DNA) and yet there is no genetic variability, something which is fundamental to the Darwinian Theory of Evolution. To ensure the survival of the species from disease, the public are forbidden entry to the *Wollemi* site.

In order to remove the incentive for plant-rustlers the Australian Government has overseen the propagation of nursery plants. Around the world, gardeners and collectors have planted hundreds of thousands of young trees, with a proportion of the proceeds going to safeguard the welfare of the original trees. Botanic gardens had a craze for planting them in outdoor cages, both to grab attention and to symbolize their rarity in the wild, where fewer than 100 specimens have now been found.

In 2020 forest fires throughout New South Wales devastated vast areas of forests and threatened the Wollemi National Park. Fortunately the original *Wollemi* trees were saved by fire-fighters (for an account of this dramatic rescue see Pentachondra 64, May 2020, page 6) but if the trees had never been discovered they would probably have been burnt and no one would have known about the wollemi pine.

After my trip to New Zealand, I visited Sydney Botanic Gardens where there are several wollemi growing including the first propagated specimen to be planted. We have a wollemi growing at Marwood Gardens, now over 12 years old and making rapid growth, producing cones for the first time last year.

Over three years ago I made a return trip to Australia. The owners of Marwood Hill Gardens, John and Libby Snowdon, live in Sydney so I had the pleasure of staying with them and also visiting the beautiful Blue Mountains National Park. I had always wanted to visit Tasmania, a two hour flight from Sydney, so on this trip I did just that.

There is another ancient conifer which only grows in Tasmania, the Huon Pine, with trees 2000-3000 years old. *Lagarostrobus franklinii* is a member of the Podocarpaceae. Those I saw were estimated to be 1000 years old and were growing along the Huon River (photo page 14), but they also grow in the wilderness regions of Western Tasmania along the Franklin River.

This is yet another conifer which has had to adapt to its living conditions. Unable to tolerate any competition from other trees or plants, it has evolved to grow right at the waters' edge of the river where no other plant will grow. Again the wood is highly prized for furniture and cabinet work. It does however grow well in gardens and does not need excessive water. It makes a slow-growing elegant weeping tree.

There are of course a couple of other old conifers I would like to see which are true pines: *Pinus aristata*, the bristlecone pine, a native of south western states of North America where trees over 2000 years old have been recorded, and *Pinus longaeva*, the western bristlecone pine, which inhabits the rocky outcrops of California, Nevada and Utah. Specimens in the White Mountains of California have been proved to be up to 5000 years old, the oldest living plants in the world. Maybe someday I shall get to see these remarkable pines but I am glad to have seen the others in their habitats and hope that they can survive climate change and adapt for years to come.

A HIDDEN GEM IN DRESDEN

Martin Krüger

I guess hardly anyone of you would think of Eastern Germany as a hot spot for the cultivation of plants from the other side of the globe. Neither did I – until 2019. In my own home town I discovered a treasure which I think is worth writing about and sharing with you.

I live in the town of Dresden, which most of you might know for its architectural splendour. Part of this is the castle of Pillnitz which is harmoniously situated on the banks of the river Elbe. The castle itself is famous as one of the biggest chinoiserie style buildings in Europe. It was mostly built during the 18th century and is surrounded by a beautiful park with many special trees. The most remarkable certainly is the *Camellia sinensis*, now a tree of 8.9 metres high and 1.1 metres in diameter. It is more than 200 years old. It was told that it remained as the only cutting of those taken from Japan by Carl Peter Thunberg to Kew, Hannover, Vienna and Pillnitz, but newer genetic analysis casts doubt on this. During the months of March and April the Camellia is flowering abundantly with approximately 35000 flowers.

Although this tree alone would be worth a journey I also want to tell you something about another jewel, which includes many plants from the southern hemisphere and especially from Australia.

Pillnitz Palmenhaus plant list

Anigozanthos flavidus
Anigozanthos hybrid
Archontophoenix alexandrae
Banksia ericifolia
Banksia robur
Callistemon citrinus
Calothamnus validus
Chamaelaucium uncinatum
Chrysocephalum "Desert Flame"
Coprosma baueri
Cordyline australis
Correa backhouseana
Corynocarpus laevigatus (NZ)
Cyathea cooperi
Dendrobium kingianum
Doryanthes palmeri
Eremocitrus glaucus (now *Citrus glaucus*)
Eremophila maculata
Grevillea juniperina
Grevillea lanigera
Grevillea robusta
Hakea baxteri
Hardenbergia violacea
Hebe x *andersonii* (NZ)
Lagunaria patersonii
Leptospermum scoparium
Melaleuca alternifolia
Melaleuca hypericifolia
Metrosideros excelsa (NZ)
Pittosporum crassifolium (NZ)
Pittosporum undulatum
Podocarpus totara (NZ)
Restio tetraphyllus
Stenocarpus salignus
Syzygium australis
Telopea speciossisima x *oreades*
Thryptomene saxicola
Westringia frusticosa

In the north-eastern part of the park is situated the Palmenhaus (palm house). As a child I often visited the Pillnitz park with my parents, but never noticed this green house, certainly because it was abandoned and close to disintegration. We are very lucky it was renovated after the fall of the Berlin wall. Although I find it is more than undervisited (or rather because of that) I enjoy lonesome walks under palm trees and along plants from the South African fynbos as well as the plains and mountains of Australia, Tasmania and New Zealand.

The palm house was built in 1859 by Johann King of Saxony as a substitute for older green houses on the same ground. It was built following a tradition from which the London Crystal Palace and the Temperate House in Kew emerged. Although it is much much smaller than the latter it is now one of the last remaining examples of this kind of architecture in Germany. It consists of ready-made iron parts and glass. In the centre you find the impressive octagon, which is 12m high and 15m in diameter. To the north and south are two long houses that are connected. Its total length is nearly 100m and it covers about 650m² (photos opposite).

The history of the palm house is varied. Before the second world war many precious plants were kept here, but although not destroyed during the war a period of neglect followed after 1945. In 1951 it was renovated and became a centre for floral exhibitions. But like many older buildings in Eastern Germany means for its thorough reconstruction were lacking. A phase of decay began in the 1970s when the frequent use of the green house stopped. That was the state I



The magnificent Palmenhouse at Pillnitz









Inside the Palmenhouse







Telopea Shady Lady Crimson™ in Maya Nedeva's garden in north Wales











Telopea Shady Lady White™ in Maya Nedeva's garden in north Wales. The bracts, which look like large petals surrounding the buds, start off yellow but become white after they open.

remembered as a child, overgrown by birch trees and a somehow mysterious thing from another time. Although demolition was planned fortunately it never happened. Renovation began in 1991 and was completely finished in 2009.

As a visitor you enter the palm house via the southern long house, which is a cold greenhouse. Here you can find plants from South Africa, especially *Protea* species. Proceeding to the octagon you enter a more temperate area, with plants from coastal areas of South and East Africa intertwining with Australian and New Zealand rain forest flora. When you leave the octagon you come to the Australian cold house, which might be the most interesting part for members of the APS. The box on page 18 contains a list of the plants I spotted there. There are banksias, *Calothamnus* , *Telopea* and representatives of the Myrtaceae.

Summing up the Pillnitz palm house certainly is an architectural as well as botanical gem. Although the variety of the planting can certainly not keep up with any British botanical garden it is well worth a longer visit and especially in connection with the Pillnitz castle and the park with the camellia it can be subject of an unforgettable journey.

If you are planning a side trip to Dresden (which is just in the middle between Berlin and Prague – or as the very proud Dresdener would say jokingly, these two cities are suburbs worth visiting) don‘t hesitate to contact me: **krugeramartin@googlemail.com** (don‘t forget the "a" between first and last name.) Maybe we can arrange a little guided tour.

Sources:

www.schlosspillnitz.de/fileadmin/ort/sppill/pdf/Tafeln_Palmenhaus.pdf

https://de.wikipedia.org/wiki/Pillnitzer_Kamelie

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MAYA NEDEVA GROWS WARATAHS IN NORTH WALES

Judy Clark

In a garden in north Wales, guess what has been flowering? APS member Maya Nedeva grows waratahs and in April 2022 the red and white ones burst into bloom. Maya posted some photos in the APS Facebook group and I was so impressed I asked if I could use her photos in Pentachondra. And I asked her to tell me more.

The red variety, *Telopea* Shady Lady Crimson™ (photos page 21), was planted outside 5 years ago while the white variety, *Telopea* Shady Lady White™, was planted outside 3 to 4 years ago. The yellow bracts, which look like large petals below the buds, turn white when the flowers open, as the images opposite show. Maya also has a variety with yellow flowers but it grows very slowly and hasn't flowered yet.

Shady Lady waratahs were developed commercially in Australia and are hybrids between the New South Wales waratah (*Telopea speciosissima*) and the Gippsland waratah (*T. oreades*). *T. oreades*, native to south eastern parts of Victoria and NSW, is probably hardier than *T. speciosissima* which is found only in NSW and further north. But *T. speciosissima* has the more spectacular flowers. Put them together and you get plants that retain the large flowers of *T.*

speciosissima but are tolerant of a wider range of conditions as they can better adapt to cooler climates and lower light levels[1].

North Wales, though, is much further north than south east Australia is south. It helps that the conditions in Maya's garden are good for growing waratahs - very well drained acid soil, reliable rainfall, and shelter from strong winds - but her plants have also had to put up with weather events like the one that occurred in late winter 2018 and became known as the 'beast from the east'. By any standard getting waratahs to thrive and flower in north Wales without any winter protection is a great achievement.

Maya purchased her waratahs directly from an Italian nursery called Flora Toscana, which she recommends, but unfortunately Brexit has made ordering from European suppliers difficult. According to the RHS online 'Find a Plant' shady ladies are also available from a couple of UK suppliers.

Note

1. www.australianbotanicgarden.com.au/plant**;** Search for Telopea speciosissima x oreades. Website accessed April 2022.



KARKALLA

Judy Clark

As I write (late April), karkalla is flowering in my garden (photo front cover). Karkalla is the koori (or koorie) name for the coastal succulent *Carpobrotus rossii*. I prefer this to its other common name of pigface, which seems such an ugly name for this pretty plant.

C. rossii is native to southern Australia where it is found on coasts from Victoria round to Western Australia including Tasmania. It is one of the four native *Carpobrotus* species recognised in Australia[1], the others being two more coastal species - *C. glaucescens* found in eastern and south eastern Australia from Queensland south to Victoria and *C. virescens* from Western Australia - and the inland species *C. modestus*.

My karkalla plants were grown from seed sown in 2016. One specimen was planted out in 2017 but it caught the cold of the 2018 beast from the east and died. The other two were planted out in 2019 and although they are growing slowly they are definitely doing more than surviving. They are planted in a sand and topsoil mix, in full sun and next to a concrete path that runs down the side of my garden. The plant that died was in a different spot which makes me wonder if the later plantings have benefited from the little bit of extra warmth radiated from the concrete at night.

Karkalla is said to be able to take a little frost[2] so I have never protected it in winter. The idea was that it would provide an unusual and colourful ground cover, and if it really needs winter protection then this idea is not going to work. I do have a spare and I also intend to propagate it (apparently easy from cuttings) so I will try it elsewhere if the current location proves unsuitable.

With their white centres the pink-purple flowers look rather like daisy flowers but their structure is quite different. *Carpobrotus* are not even closely related to daisies (which are members of the Asteraceae) but rather belong to the Aizoaceae which generally have succulent leaves, as does karkalla.

At 3.5 to 5.5 cm the flowers of *C. rossii* are smaller than those of the South

African *C. edulus*, which can have yellow or pinkish-purple flowers depending on the variety. You may know this as a garden plant or, if you live in the south or west of England, from cliffs or coastal banks where it has leapt the garden fence. Unfortunately it can be very vigorous and smother other plants, which means that if it escapes it can cause serious damage to native vegetation. *C. rossii* can behave similarly in Australian gardens[2] but my experience suggests that the climate is not (yet) warm enough for it to grow very energetically here. But who knows what a warmer climate might bring?

References

1. Australian Plant Name Index **biodiversity.org.au/nsl/services/search/names**. Kew Plants of the World online recognises 5 Australian species.

2 Carpobrotus rossii: **www.gardeningwithangus.com.au/carpobrotus-rossii-pigface/**, accessed May 2022.



MAURITS DE VRIES: A PASSION FOR SOUTHERN HEMISPHERE PLANTS

A version of this article was first published in the Dutch plant magazine '**Groei en Bloei**. Maurits de Vries obtained a translation which he edited.

It all started in 2005 on Corfu island, says Maurits de Vries. *When we were there on holiday I saw a beautiful exotic tree, I didn't know what it was called, it was in bloom and I knew: I want that!* After a few days of searching on the internet I found the name: albizia. The same year, I immediately bought two albizia trees from De Groene Prins, an exotic plant nursery in Steenwijkerwold.

And to think that Maurits previously had nothing to do with trees, plants or gardening. *When we moved from a flat to our house in Schoonebeek in 2004, we had a garden for the first time. The first year we didn't do anything about it, after that a lawn was added. My mother-in-law asked if we were going to plant a garden now. No, we said, I`m not interested.* He now has a beautiful *Albizia alba* in his garden, which he grew ten years ago from seed ordered from E-bay.

After seeing the albizia, Maurits became interested in plants, but mostly only those from the southern hemisphere. Although the word 'passionate' better reflects what those plants do to him. Because that's what you call someone who orders seeds from Australia, New Zealand or Chile, and someone who drives to Calais to pick up plants an English friend (John Purse) bought for him in England and who was then in Calais.

What does he like about exotic plants? *They have unusual flowers and foliage. It's just different, you don't see it every day*.

At the end of the summer, Maurits searches the internet for suppliers of rare plant species and orders seeds from them. He grows them in a room that he has furnished as a seed room, complete with a propagator, LED lamp, magnifying glass and material to sand the seeds. At one point he had so many plants that it was impossible to keep up. *I started a website to remember everything.*

On **www.tropische-tuin.nl** he writes down all conceivable information about his plants and the experiences he gains with their winter hardiness. Because, he says, it is a sport to guide them through the Dutch winters unscathed. *As soon*

as someone says: Don't start, this plant is not hardy, that is a signal for me to test that plant for hardiness. That's why most don't get protection. I do nothing at -5 or -6 °C. Only when it is two weeks below zero I protect them with foil and tempex plates. At -16°C I have protected my aloes with a plastic box over it, not against the cold, but to protect them against the east wind and snow. It is always a matter of waiting: what a certain plant does in my garden, can it thrive at this spot or do I need to move it to another part of my garden? I have several specimens of a single species in different places in the garden, just to see where it can thrive the best. I have the luxury of having different types of soil here: sand and forest soil. It's a bit of trying to see which plant does well where. And of course it fails often enough. But that is part of it.

The following are just three of Maurits' Australian plants.

***Eucalyptus pauciflora* subsp *niphophila* (Snow gum)**

I have had this eucalyptus since 2006. Compared to other eucalyptus species, it remains quite small and has a nice flaking trunk. It is one of the hardiest eucalyptus, it survives all winters with us. Often apparently dead eucalyptus sprout from the trunk or base. This survival mechanism has to do with the frequent forest fires in Australia, where after a fire the 'sleeping buds' under the bark sprout again, so that the tree is fully in leaf again after a short time. The tree can also benefit from this property after freezing.

Leptospermum namadgiensis

This is one of the hardiest plants I grow. It was first discovered on Mount Scabby in Australia in 1987. It grows quickly and has a beautiful bark that peels off (photo opposite). I go for the special plants, plants that you don't see every day: these are not for sale in the Dutch trade, I got a cutting from America. Because it has been in our garden for ten years and has already had a lot of cold winters, I consider it completely hardy. I also noticed that this plant does not need extra water in the summer. My opinion is that this shrub is therefore extremely suitable for the Dutch climate.

***Acacia obliquinervia* (Mountain hickory wattle)**

This was my dream plant, my pride (photo opposite). I had grown it myself from seed, which I ordered in Australia. A few years ago it survived -18°C, but this year it died at -16°C. First it turned light gray, then brown, with only a little bit of life at the top. Perhaps it was cold too early and the sap flow had already started. I'm going to saw it off and see if it's still alive. Too bad, he's been here for ten years. But I have another plant upstairs in my grow room.



COROKIA X VIRGATA 'MONA'S MAGIC'

Mona Abboud

As the Plant Heritage National Collection® holder of *Corokia*, I am proud to announce the arrival of a brand new cultivar, which appeared in my garden two years ago. Having scoured the length and breadth of southern England and travelled as far afield as Holland and Brittany in France in search of elusive *Corokia* hybrids, it was a wonderful surprise to have one appear in my own garden!

It is definitely a *Corokia* x *virgata* cultivar, displaying a glossy bronze foliage in winter. The distinctive







Maurits de Vries' plants

Leptospermum namadgiensis, left and above

Acacia obliquinervia, right and below







***Corokia* x *virgata* 'Mona's Magic'**

Left: with green summer foliage
Right: with bronze winter foliage

spear-shaped leaves are unique, not to be found in any other member of this genus (photos opposite). It is to be named *Corokia* x *virgata* 'Mona's Magic', a name given by horticulturist Paul Boosey. His grandfather Graham Hutchins was the great plant explorer and pioneer who brought back many corokias from New Zealand, and subsequently bred them. I dedicated my book **Corokia - My Adventure**, to both Graham and Paul. With this new cultivar, I am attempting to walk in Graham's footsteps.

Following the discovery of this new hybrid, I have since discovered a few more *Corokia* seedlings that have spontaneously appeared in my 'Corokia hedge' area which comprises thirteen different varieties. Cross fertilisation is bound to have taken place, and it will be very interesting to see what they end up looking like once they have developed more.



SPEAR LILIES

Judy Clark

I check the APS Facebook group regularly because it's always really interesting to see what members are growing. Towards the end of March this year Sean Boast posted a video showing a plant called *Doryanthes palmeri* (commonly known as the spear lily or giant spear lily) flowering in the greenhouse at Abbotsbury Sub-tropical Gardens (photo page 33). Spear lilies are amongst my favourite aussies because they are just so spectacular with their dramatic spiky foliage, giant flower spikes that in cultivation can reach 10m in length[1], and stunning red flowers. Sean's video takes the viewer around and over his specimen giving a really good idea of just how enormous this plant can be.

D. palmeri is one of only two species in the genus *Doryanthes*. The other is *D. excelsa* which has a number of common names including gymea lily, flame lily, Illawarra lily, Queensland spear lily and giant lily[2]. Once thought to be related to agaves but now known to be most closely related to the Iridaceae (iris family), *Doryanthes* now has a family all to itself, the Doryanthaceae.

Both species have similar shaped leaves although those of *D. palmeri* are larger, reaching up to 3m on mature specimens. The flowers are also similar but those of *D. excelsa* are larger, about 10cm, compared with about 6cm for *D. palmeri*. The most obvious difference is the way the flowers are arranged on the stem (technically a scape). *D. excelsa* has them organised in a compact globular head while *D. palmeri* has them positioned along the stalk in an elongated head (see illustrations page 33). Unlike *D. excelsa* the stalk of *D. palmeri* droops rather than standing erect, apparently due to the weight of the flowers[3].

Getting a spear lily to flower in the UK is no mean feat, even with today's knowledge of how to cultivate them. Think then how thrilling it must have been for a gardener to flower a specimen of *D. excelsa* over 200 years ago, for that was when the first flowers were seen in England.

In the wild *D. excelsa* is found around Sydney with small populations further north in New South Wales[2]. This meant it was likely that it would be noticed by colonising Europeans early on, and it was. The first European known to have come across it was the explorer George Bass who brought the first specimens to Europe. Shortly after Captain (as he then was) John Hunter, the Governor of New Holland (as the colony was then known) sent more. Amazingly, Kew

then managed to produce a single flower on a rootless stem that had been gathered months before; at the time this flower was regarded as "*one of the wonders of the vegetable kingdom*"[4]. From this collection of plant material the Portuguese botanist Jose Correa da Serra was able to determine that he had not only a species hitherto unknown to science but also a genus, and he named them both formally in a paper read to the Linnean Society in 1800[5].

Probably the first actual plant to flower in Europe, according to Curtis's Botanical magazine[6], was one grown in a greenhouse belonging to the aristocrat Charles Long and sited at Bromley Hill in Kent. The date of flowering is unclear - it could have been 1813 or 1814 - as is the age of the plant. Presumably it was grown from seed and the earliest seed could have been obtained was 1800 (assuming no earlier undocumented introduction). Arguably it was not then known how long spear lilies can take to flower from seed so one can imagine the excitement when the towering flower stems (said to be 10 to 12 feet tall (3 to 3.7m)) with their dramatic red blooms (**illustrations page XX**) eventually appeared.

D. excelsa continued to be grown in large gardens throughout the 1800s, though flowering remained a rare occurrence. By 1870 it was recognised that there were actually two distinct species, and that the second, *D. palmeri*, had already been grown in England for years, albeit under the name *D. excelsa* [4].

D. palmeri is confined to coastal ranges straddling northern NSW and south east Queensland[3] and was first sighted in the wild by a European in 1860. Walter Hill, Queensland Government Botanist and superintendent of Brisbane Botanic Garden collected specimens and exhibited a flowering plant at the Intercolonial Exhibition in Sydney ten years later[4]. Along with a drawing by a "Miss Scott"[7] this provided sufficient material for George Bentham to name the plant *Doryanthes palmeri*; the name was published in 1873[8]. It is recorded as flowering in the Temperate House at Kew in 1882, but whether this was the first flowering of *D. palmeri* in Europe is unclear.

Returning to the 21st century, some quick googling reveals several recent flowerings of both species in UK botanic gardens. In 2020 a specimen of *D. excelsa* flowered in the Continents Apart House at Cambridge University Botanic Garden[9]. The CUBG collections database shows that accessions were made in 1954 and 2007 but my googling didn't tell me about which one flowered. In May 2021 the same species was plant of the month at Sheffield Botanic Gardens. Growing in the Pavilions, their specimen had taken 16 years after it was first planted and produced a flower spike which eventually attained 20 feet (6.1m) in height[10].

The giant spear lily in the Princess of Wales Conservatory at the Royal Botanic Gardens Kew last bloomed in 2015. It came to Kew as a seed in 1948 and had previously flowered in 1966, 1982, 1993 and 2004[11]. Individual rosettes die off after flowering but plants produce new ones clustered round the mother plant, so each new flowering of *D. palmeri* emerges from a fresh rosette.

The Kew plant apparently took 18 years to flower for the first time. The specimen in the Victorian Temperate Palm House at the Royal Botanic Gardens Edinburgh took rather longer: 60 years. This plant came from seed donated by Adelaide Botanic Garden in

1957. Its scape began to develop in 2017 and the flower opened in February the following year[12].

Both species of *Doryanthes* are slow growing but this data on first flowering suggests that plants often take longer to flower when grown in a UK greenhouse than they do in an Australian garden. Elliot and Jones give a range of 5 to 10 years[13] but information about growing native plants provided by the Australian National Botanic Gardens states suggests that *D. palmeri* can take up to 13 years to flower[3] while *D. excelsa* plants flower at about 8 years old[2].

Obviously flowering depends on having the right environment. In general spear lilies prefer sun but can cope with dappled shade. They like well-drained soil and slow release fertiliser in small doses. And though they can do well in cooler temperate areas the developing flowers can be adversely affected by frost[13].

Gardeners also have a trick up their sleeves to persuade spear lilies to flower. Angus Stewart, a highly respected Australian horticulturalist and native plant enthusiast, writes that in his experience "*lodging a stone about the size of a 50c piece in the crown of a large shoot has triggered flowering the following season*"[1]. In the wild mass flowering is known to occur after bushfires. If something in bushfire smoke triggers flowering in *Doryanthes* I wonder if irrigation with smoke water might do the same?

Spear lilies can live for many years and make huge clumps. If the tops are damaged after bushfires *Doryanthes* species are able to re-sprout because their fleshy rootstock is well buried. This also enables them to survive drought in the wild. In my experience *D. palmeri* can also survive extreme cold, presumably for the same reason[14].

Ever optimistic, my still small specimen of *D. palmeri* is planted outside in my Hastings garden. It is growing, but slowly, and I do protect the foliage in winter when frost is predicted. Maybe, just maybe, this gorgeous plant will flower for me one day.

Notes and references

All websites accessed April 2022 except for 7

1. www.gardeningwithangus.com.au/growing-gymea-lilies/

2. Australian National Botanic Gardens, Doryanthes excelsa, www.anbg.gov.au/gnp/gnp12/doryanthes-excelsa.html

3. Australian National Botanic Gardens, Doryanthes excelsa, www.anbg.gov.au/gnp/interns-2012/doryanthes-palmeri.html

4. Curtis's botanical magazine (1883), Doryanthes palmeri, v.109=ser.3: v.39, Tab 6665, www.biodiversitylibrary.org/item14237

5. Correa da Serra, J.F. (1802), On the Doryanthes, a new genus of plants from New Holland, next akin to the Agave. *Transactions of the Linnean Society of London* 6: 211, t. 23-24

6. Curtis's botanical magazine,(1815), Doryanthes excelsa, v.41, Tab 1685, www.biodiversitylibrary.org/item/14325

7. australian.museum/learn/collections/museum-archives-library/scott-sisters/ Helena "Nellie" Scott (1832 - 1910), along with her sister Harriet, was a prominent 19th century Australian illustrator of natural history (especially plants, moths and butterflies) and a plant collector for Ferdinand von Mueller.. She was largely forgotten until a 2011 exhibition of her and her sister's work at the Australian Museum in Sydney.

8. Bentham, G. (23 September 1873), Doryanthes palmeri *Flora Australiensis* 6: 452

9. www.botanic.cam.ac.uk/the-garden/plant-list/doryanthes-excelsa/

10. www.fobssheffield.co.uk/plant-of-the-month/doryanthes-excelsa, dated 1st May 2021

11. https://m.facebook.com/kewgardens/posts/10152715680686994, posted 02.07.2015

12. www.rbge.org.uk/news/articles/blooming-marvel-as-60-year-old-plant-finally-flowers/, dated 10th May 2018

13. Elliot, WR and Jones, DL (1984). *Encyclopaedia of Australian Plants suitable for cultivation* (volume 3). Melbourne: Lothian Publishing Company Pty Ltd, pp. 329-30

14 Pentachondra 6, December 2018, page 37.

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BITS AND PIECES

Compiled by Judy Clark

Growing Wollemia nobilis from seed: an update from Jude Lawton

In 2019, I received seeds as part of our project to trial growing these ancient, rare trees. Five germinated, four died. Pictured on page 34 is my one remaining plant, in a 9cm pot. It looks small but reasonably healthy, and I am nervously contemplating potting it on.

Now I am delighted to have six more seeds, which are currently stratifying in my fridge. The next stage is to put them in my propagator at 25°C. Fingers crossed they are still viable and raring to go.

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**, or post on our Facebook group, the Australasian Plant Society.

Not Grevillea williamsonii; an update

In Pentachondra 61 (December 2018) I wrote a piece entitled 'Is it really that grevillea?' One of the grevilleas that I discussed was a plant being sold as *Grevillea williamsonii*. I grow a plant in my garden that came with that name, but my research indicated that it might be the cultivar *G.* 'Poorinda Constance'. I wasn't quite sure but correspondence with Peter Olde and Neil Marriott (authors of **The Grevillea Book**) confirmed that I should go with the name *G.* 'Poorinda Constance'.

G. williamsonii has orangey-yellow flowers that turn reddish pink as they develop while *G.* 'Poorinda Constance' has bright red flowers from the start (see photos page 34). One can only surmise that there was a name muddle somewhere along the line that led to the two plants being confused.

Flora of Tasmania online

Trying to check the identification of a Tasmanian plant? For images I find the online Key to Tasmanian Dicots very useful[1]. Contrary to its title it is not restricted to dicots (species whose seedlings emerge with two leaves) but also includes monocots (one seed leaf), conifers, ferns and fern allies, liverworts and mosses. But for comprehensive descriptions you need the Flora of Tasmania online[2].

This is a work in progress and a description of every plant found in Tasmania is not yet available. But new accounts are being added all the time.

For example, in 2020 changes to the descriptions and keys for the genus *Eucalyptus* were published, following some taxonomic revisions. In Tasmania 31 species are now accepted (with 4



above:

Doryanthes palmeri in the greenhouse at Abbotsbury Sub-tropical Gardens



left and below:

Doryanthes excelsa as illustrated in the Botanical magazine in 1815





Jude Lawton's young wollemi pine looking very happy in its pot

***Grevillea williamsonii* (below): compare the flower colour with that of *Grevillea* 'Poorinda Constance' (below right).**





subspecies) and 16 of these are endemic. Only 29 *Eucalyptus* species are included in the Key to Tasmanian Dicots but this is because the Flora of Tasmania also includes an introduced species (*E. nitens*) and a species that was first described only in 2008, *E. nebulosa* from the northern part of the west coastal region.

1. www.utas.edu.au/dicotkey/dicotkey/key.htm
2. https://flora.tmag.tas.gov.au/

Why not grow a varnished wattle?

Acacia verniciflua is one of the more cold tolerant species of wattle on the APS seed list. Having the common name varnished wattle, this *Acacia* has phyllodes (modified stems that function as leaves) shaped so much like willow leaves that one could be excused for thinking that it is a willow. Only the two prominent nerves (veins) on each shiny light green phyllode give the game away and indicate that it is not a willow. A willow would have a central midrib.

Spikes of pale yellow ball flowers appear in the phyllode axils any time from late winter to early summer. Jeff Irons' plants first bloomed when they were 4 years old, in late winter. At that time the shrubs, planted close together, were about 4ft high and a bit more across. If left unpruned they can be expected to reach to about 3m x 5m.

If you want an evergreen shrub with gracefully arching branches, that is attractive all the year round and gives a bonus of flowers early in the year, this is a plant for you. The specific name *verniciflua* means “yielding varnish” and refers to the resinous substance on young growth.

(Adapted from an article by Jeff Irons)

Alpine Tasmania: an illustrated guide to the flora and vegetation by Jamie Kirkpatrick

Photographs by Peter Dombrovskis and illustrations by Georgina Davis and Jo Eberhard

This book by the highly respected geographer and conservation ecologist Jamie Kirkpatrick, Distinguished Professor in the Department of Geography at the University of Tasmania, was first published in 1997. Although there have been some taxonomic and nomenclatural changes since, not to mention the discovery of new species, it remains an extremely useful resource for finding out about Tasmanian plants.

It is now available as an e-book from t**asmaniangeographic.com/presents/kirkpatrick/e-books-by-jamie-kirkpatrick/**. There's no fixed price, just an honesty box where you pay what you can afford.

RHS plant name changes

Plant name changes result from taxonomic reviews of species or groups of species by specialist botanists. There is no onus on any authority to adopt a new name and different authorities can and do adopt new names at different times. When one does a new name becomes 'official'; that is, the name by which the plant is recognised in that jurisdiction.

The RHS authority is their Nomenclature and Taxonomy Advisory Group and any changes they make appear in the RHS Plant Finder. The RHS journal **The Plant Review** runs a regular 'Plant names bulletin' which lists recent changes. Recent changes noted in the September 2021 issue include:

Kennedia macrophylla is now included into *K. lateritia*.

The genus *Sollya* has been transferred to *Billardiera* so *Sollya heterophylla* becomes *Billardiera heterophylla*. *Sollya fusiformis*, now considered a species in its own right, becomes *Billardiera fusiformis*.

For sale: Why not buy a copy?

Australian Plants – A Guide to their Cultivation in Europe

This excellent book by Thomas Ross and Jeffrey Irons, one of the founders of the APS contains detailed information about selected Australian species that can be successfully cultivated in Europe along with a list of the characteristics and cultivation requirements of another 500 plants. This data is based on experience; the authors cultivated almost all of the plants listed in the book in gardens in Britain, Germany and Spain.

The temperature data on are particularly useful. As hardiness varies with circumstances a 'danger zone' is given for every plant listed. At the upper limit plants growing in less than ideal conditions are likely to be harmed; at the lower limit even established plants could be severely damaged and die. may die.

Eucaflip

This full colour photoguide is designed to enable 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. It is laminated and light enough to carry. When fully open it measures 92 by 48 cm but when folded it measures only 23 by 12 cm.

Contact **enquiries@anzplantsoc.org.uk** to buy Eucaflip for £7.50 plus postage, and Ross and Irons for £10 plus postage.

Illustration acknowledgements

Mona Abboud: page 28
David Betteridge: page 7,:above
Sean Boast: page 33, above
Judy Clark: front cover; page 8, bottom left; page 34, bottom right
Louise Drosdzol: page 13
Gary Dunlop: page 8, centre and bottom right
Tom Hart Dyke: page 8, top left
Maria Firth: back cover
Jeff Irons: page 8, top right
Jude Lawton: page 34, above
Bob Makinson: page 7, below (from Pentachondra 55)
Martin Krüger: pages 19, 20
Neil Marriott: page 34, bottom left
Maya Nedeva: pages 21, 22
Malcolm Pharoah: page 14
Maurits de Vries: page 27
Botanical magazine 1815: page 33, below

The Australasian Plant Society

Minutes of the Annual General Meeting
Held via Zoom on 19th February 2022

Committee Members Present:

Judy Clark - Newsletter Editor

Jeremy Spon - Treasurer/Membership Secretary

Gary Firth - Events Co-ordinator

Jude Lawton - Conservation

Janet Miller - Seedlist Manager

Plus 10 other members.

1. Apologies for absence.

Apologies had been received from Tom Hart Dyke, Robbie Blackhall-Miles, Ben Ram, Doug Smith, John Edmiston, Chris Brickell, Beth Smith, Julia Andrews, Steve Bridger, Greg Plenty, John Williams, and Graham Blunt.

2. Introductions.

As Robbie Blackhall-Miles had stood down as Chairman the meeting was chaired by Gary Firth, who welcomed everyone, and thanked Gill Groombridge for setting up the Zoom meeting.

3. Minutes of Last Meeting.

These had been published in the May 2021 edition of Pentachondra, and were approved.

4. Matters Arising.

Gary asked whether we should try to run the photo competition again. Judy Clark said that there had only been a handful of entries last time, and Ben Ram did not want to organise it again, but that with more encouragement, more members might enter. She reported that she still had several of the Banksia prints, one of which was given as the prize last time the competition was held. It was agreed that we should try again, and Gary would liaise with Judy about an item in the next Pentachondra announcing this.

4. Election of Officers.

a) Following Robbie Blackhall-Miles' decision to stand down as Chairman, no volunteers had come forward to take over from him, but the committee has persuaded Gary Firth to take on the role, and he was unanimously elected by the meeting. Gary briefly explained his background and interests, and expressed the gratitude of everyone for all that Robbie had done for the APS during his time as Chairman.

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

c) Committee. All existing members of the committee, apart from Robbie (Social Media) were willing to continue in post, although Judy would still like to share out some of the

workload of the newsletter. Jeremy Spon and Janet Miller had both offered to help where possible with distribution, and Gill Groombridge (who has had considerable experience managing Plant Heritage publications) also offered to help however she could; Jude Lawton offered to proof-read. The meeting agreed to re-elect the committee en bloc.

d) Other Roles. Sean Boast will continue to oversee the APS Facebook group; Gill Groombridge volunteered to look after the APS Twitter account, and also offered to set up an Instagram account; she agreed to join the committee with this role.

5. Committee Reports.

a) Treasurer's Report (Jeremy Spon)

The accounts for 2020 had been published in the May 2021 edition of Pentachondra, and these were approved. Jeremy then presented the accounts for 2021, which showed that the Society's financial position was still healthy, with income for the year comfortably exceeding expenditure. Membership had increased slightly to 198. The accounts for 2021 were also approved. Only two members had responded to the appeal to switch from Paypal to Standing order; a reminder about this would be included in the next Pentachondra. It was agreed that it would be reasonable to ask new members to pay more for using Paypal going forward (existing members would not be affected.) Jeremy would liaise with Ben Ram about making the necessary changes to the website.

b) Newsletter Editor's Report (Judy Clark)

Judy once again thanked all those members who had contributed articles during the last year. The question of outside paid-for help in producing the newsletter had been raised, but it seemed unlikely that this would be cost-effective given the infrequency with which newsletters are produced (i.e. twice a year.) Judy said that she still hoped someone would volunteer to write a regular column for Pentachondra; she also hoped for more contributions in some form for the next edition. She then reminded members that we had copies of Jeff Irons' book available to sell to members at a very reasonable price, and suggested that advertising this on the website might encourage more new members to sign up. She would talk to Ben Ram about this. It was also agreed that the APS would try to promote, and sell at events, Mona Abboud's book on Corokias, and that Judy would order some more copies of the Eucaflip chart, to be similarly promoted.

c) Seed List Manager's Report

Judy began by explaining the problems (caused by Parcelforce) we had had with our seed order from Australia, which had resulted in the order being returned to Australia, and a number of items shown in the published seed list being unavailable. The order was now in the process of being resent, by courier rather than the postal service. Given the cost of the phytosanitary certificate, it had been suggested we might be able to combine with other organisations in placing orders, to share that cost; this would be investigated further. Janet Miller reported that there had only been about 20 orders of seed from members; most had been delayed by seeds being unavailable, and eventually she had had to send out orders incomplete.

d) Website Manager's Report (Ben Ram)

There was no specific report from Ben, but he had told Gary that he was willing to continue looking after the website.

e) Social Media (Robbie Blackhall-Miles)

Robbie had also not submitted a report, but had resigned from his role due to work commitments.

g) Events (Gary Firth)

Two events for publicising the Society had already been arranged: a display at the Wisley Specialist Plant Societies Show on 18th//19th June, and a joint display with the Hebe Society at the new Wisley Hilltop centre on 8th October. Gary appealed to all members for any help with plants for display or with manning the displays. We would also like to attend the Great Dixter Show in October, but currently no details were available about this. Plants for sale would be needed at this Show, and Gary is looking into buying in some; any plants from members for sale would be most welcome. Also planned is a visit to Abbotsbury Garden on 9th July, when we will be shown round by member Sean Boast, who works there. As part of efforts to increase cooperation between the APS and the Hebe Society, this visit will also be advertised to Hebe Society members. Judy had also suggested a meeting at Wakehurst Place, and was willing to organise this. Gary noted that the committee was quite concerned that most events in recent years had been in the south of the UK, and it would be good to have some events further north. Anyone who might be willing to arrange a meeting locally to them would be given whatever help and encouragement the committee could. Lewis Normand said he would investigate possible venues, and useful contacts, in Scotland. It would also be good to have more visits to members' own gardens; Jeff Layman indicated he would be happy to host a visit to his garden.

h) Conservation (Jude Lawton)

Jude reported that no real progress had been made during the past year, but that with Covid restrictions being lifted she was hoping to start work on conservation projects again. Unfortunately, as far as Grevilleas were concerned, most members with relevant plants were in Europe, who would not qualify for Plant Heritage collections. Gary suggested that as an alternative, and given the problems that now exist in getting plant material into the UK, we consider setting up a dispersed collection of Australasian plants, to help preserve what is already in cultivation here, and enable greater sharing of plants. Gill Groombridge pointed out that there would need to be a clear definition of what constituted an Australasian plant, and it was agreed to limit the scope to Tasmanian plants – this would make the number of species covered more manageable, and would cover the plants most easily grown in the UK.

6. Any Other Business

a) Gary raised the issue of the AGM, and when, how and where it might be held in future. The committee had already agreed that it made more sense to hold the AGM after Christmas, as the full financial accounts for the previous year would be available then; if the AGM were to return to Lullingstone, which Tom had indicated he was happy to host, it would have to be no later than February, as after that Tom would be too busy preparing the World Garden for opening. If we did want to hold the AGM later in the spring, another venue would have to be found. One possibility would be to use RHS gardens; this would have the advantage of allowing the AGM to move around the country in different years, and also possibly enable the meeting to be accessible by Zoom for those who could not be physically present. It was agreed that the committee would investigate using an RHS garden, or the London HQ, in the next year or two, and

perhaps, if this was successful, alternating this with Lullingstone, as moving meetings around the country helped encourage more participation by members.

b) Gary reported that the Hebe Society was looking into becoming the coordination body in Europe for the registration of new Hebes, in concert with the Royal New Zealand Institute of Horticulture, with a view to bringing the Register up to date. The prospect of somebody acting in the same way for new plants of Coprosma, Leptospermum, Pittosporum and Phormium had also been raised by the contact in New Zealand. The Hebe Society was reluctant to get involved with these additional genera, because of the large number of Hebes needing to be looked at, and it had been suggested the APS might be able to take on this responsibility. It would involve fact finding about new varieties, and all the recording work would be done online. It was agreed the committee would look into this.

c) Mona Abboud announced that her garden was to become part of the network of gardens of Perennial (the Gardeners' Royal Benevolent Society) and that the garden would be expanded by Mona buying a large part of her immediate neighbour's garden, and installing a state of the art new greenhouse. This would ensure the future of the large collection of rare and unusual plants, mainly from New Zealand, grown in the garden. There would be an article in the next Pentachondra giving more details of these plans.

d) It was agreed that Judy would produce an updated version of the Nurseries leaflet, giving details of members' nurseries, to be mailed out with Pentachondra.

e) Steve Harding pointed out that Lowaters nursery was quite close to Jeff Layman's garden, and it was agreed that the committee would investigate the possibility of combining a visit to Jeff with a tour of the nursery.

7) Conclusion

Gary thanked everyone for joining the meeting, and for their support, and also thanked Gill again for setting up the Zoom. He then declared the meeting closed.

THE HEBE SOCIETY

The only Plant Society specialising in New Zealand plants
Free cuttings exchange
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Sophora 'Sun King' at Borde Hill Gardens on March 21st