

### AN ONLINE INDEPENDENT NATIONAL PROJECT

### CONSERVATION THROUGH CULTIVATION

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# Project launched on 14th November 2013

### Maria Hitchcock OAM

Founder, Bulletin Editor Armidale NSW 2350

### Membership

Membership is free.

Please encourage others to join.
eBulletins are sent by email only.
Feel free to share them with
friends and colleagues..

New members will receive the latest e-Bulletin. Earlier Bulletins can be accessed on our website. (See address above)

This is an informal interactive sharing group. We welcome your emails, articles and offers of seed and cuttings at any time.

Your privacy is respected and assured with this group. You may **unsubscribe** at any time.



Banksia conferta subsp conferta Image: australianseed.com

# In this issue: Maria writes Great Southern Forest update Nightcap Oak planting Superb Midge Orchid Pandanus Planting Emu Park/Yepoon Flora Connections 7 Banksia conferta subsp. conferta Seed/cuttings exchange 9/10

Unsure if you have any rare or endangered plants?

Check them out on the EPBC list

http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora

### María writes:

As I write this the power has been off for 40 hours due to a cold front with damaging winds that has swept up through the east coast of Australia, knocking over trees which had been exposed to an unbelievable amount of rain and were poorly anchored in the soggy ground. Climate change is certainly starting to have an impact and our emergency services can't cope with the sheer volume of disasters faced by homeowners and businesses across the nation. This is the result I believe of a decade of official climate denial and lack of preparation.

Climate change was the No I issue in the recent election, resulting in a major upheaval of our party system with multiple seats going to independents and the Greens. Many of us who work in the environmental space could see it coming but were powerless to influence the powers that be. I look forward now to some serious developments in the provision of renewable energy and incentives for people to install solar panels and batteries.

We already know that the automotive world has turned from producing gas guzzlers to electric or hybrid. As the price comes down, more of these will replace petrol driven vehicles. That creates another problem of providing charging stations. The best charging station is a renewables powered home. It's an exciting time and I look forward to a dramatic change in direction. Sadly we still have dinosaurs in the community who will try to obstruct developments.

A feature of La Niña in my area is the mild winter. So far we have had only 2 frosts. Plants are totally confused. On the Tablelands the minimum temperature for May is 4C warmer than the average and we've had 100mm more rain than can be expected. The strawberries continue to flower, the pumpkin vine looks very lush and there are roses in bloom. The general timetable of fertilising, pruning, planting is somewhat disrupted. This must be hard for the horticultural industry which has to plan well in advance.

Each year I look forward to Autumn when the days are generally dry, plants shut down their growth for the winter and we start getting regular frosts. Not this year. Unfortunately a hard frost on top of lush growth can prove fatal for more sensitive plants. I am growing a number of R&E

Let's Celebrate! 27th March Earth Hour

> 22nd April Earth Day

5th June World Environment Day

8th June World Oceans Day

1st August National Tree Day

1st September National Wattle Day

7th September
Threatened Species Day

8-15th November Pollinator Week

plants which have all been sourced from native gardens as cuttings, propagated and planted. Multiples often end up in other gardens which helps ensure their survival in the long run.

Now is the time to start planning for National Tree Day. Think about approaching a local school to involve students in this celebration if they are not already doing so. Try to plant a few rare species in the mix and make sure the kids know that they are threatened and why it is important to care for our rare plants. You never know how your efforts might be rewarded in later years with the odd ecologist, botanist or zoologist emerging as a result.

### Great Southern Forest update

Heather Miles in APS Newsletter March 28, 2022

http://www.greatsouthernforest.org.au/

APS NSW supports and is a signatory on this initiative, which is also endorsed by 50 other organisations. Here is an update from their executive.



The Great Southern Forest proposal is a widely researched, solutions-based initiative for the carbon and biodiversity dense SE NSW native forests. It offers nature-based solutions to critical national and global problems and with great benefit for climate stabilisation, environmental and economic success, increased resilience and biodiversity, regional employment, First Nation participation and social coherence. This new model of forest management is relevant and transferable nationally.

Implementation of the proposal can reduce forest fragmentation enabling the connectedness and resilience to withstand and ameliorate a disrupted climate. Great Southern Forest proposal recognises that:

The core of the Great Southern Forest proposal is to reorient management of South East (SE) NSW public native forests from industrial logging to prioritise ecological integrity of our continent, climate stabilisation, water security and carbon sequestration, thereby activating new money and new jobs in the regional economy.

The Great Southern Forest proposal recognises that:

 forests are vital for homeostatic climate stabilisation of the planet

- existing mature plantations can meet Australia's timber needs
- while the Regional Forest Agreements remain in place, their assumptions and outcomes are proven flawed and clearly outdated in the light of current scientific evidence and the increased recognition of the importance of unlogged forests in climate and water cycles
- the present system of management of SE native forests for timber extraction has overseen large environmental, economic, social and employment losses with inestimable damage to soil, water, biodiversity, wildlife, habitat and canopy thus leaving drier, more fire-vulnerable forests.

The Great Southern Forest vision, in a new and ethically responsible way, recognises that public native forests have far more significant values than their present use as a source of wood, that can now be met by plantations. This vision entails changing management of these biodiverse ecosystems from destructive and loss-making logging to prioritising their crucial roles in the climate and water cycles, and to their major contributions to ecosystem services, species diversity and community wellbeing.

New forest management arrangements can draw on the best current scientific advice, ancient Indigenous knowledge and successful overseas models; train a highly skilled workforce for diverse new regional jobs in forest restoration and adaptation; maximise carbon sequestration and climate mitigation benefits; grow tourism; share the value and respect regional communities have for the beauty and uniqueness of our native forests, and safeguard the conditions for Life for all living creatures. Importantly, this is not a proposal for further reserves although this may be appropriate for some areas.

Great Southern Forest recommends that the NSW and Commonwealth governments:

• Implement an urgent re-orientation of management of public native forests in SE NSW from timber extraction to ecological integrity, climate stabilisation, water security

- Cease logging and woodchipping in SE NSW state native forests, especially considering the devastation of the 2019-20 bushfires unlogged forests are more fire resistant;
- Enact the full and Fair Transition to plantations for wood supply;
- Terminate the Eden and Southern Regional Forest Agreements and the SFOA, reinstate full Commonwealth environmental protection, and pilot this new model of forest management in SE NSW;
- Ensure implementation of a Just Transitions program for SE NSW timber workers;
- Extend First Nation partnership in custodianship, management and employment;
- Prioritise forest preservation and restoration in the 472,753 ha of SE public native State forests.

\* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \* \*

### Nightcap Oak Planting

AAP 8/5/22

Endangered trees are being planted in secret locations on the NSW north coast in an attempt to save the species. The critically endangered nightcap oak trees date back to the Gondwana supercontinent era and can grow up to 40 metres tall, but are only found in northern NSW. The only known wild population is located in rainforest north-east of Lismore. About 20% of them were destroyed or damaged during the 2019/20 bushfire season, however seeds were collected and propagated. Despite being notoriously difficult to grow, and growing slowly, 50 successful seedlings have been developed. National parks on the north coast will house 20 of the seedlings at four secret sites. The replanting is part of the NSW Saving Our Species initiative and the locations were selected by national park officers and Australian Botanic Gardens species experts, choosing sites based on their long-term climate resilience. "The nightcap oak is the ancient rainforest equivalent of the Wollemi pine in terms of evolutionary significance, and it's yet another great example of a critical species that we're helping to bring back from the brink," NSW environment minister James Griffin said.

# **Save our Flora PowerPoint Presentation**

Ready to go!

30 slides approx 30 mins. talk

If you are interested in obtaining
this presentation
please email me
I can send it in an email (4.3MB)

### **Available Propagators**

The following people have indicated a willingness to work with projects that require good propagation skills. If you would like to be added to this list please let Maria know.

Maria Hitchcock Armidale NSW Life member NSW - APS Over 40 years propagating experience. Cool Natives Online Nursery https://coolnativesnursery.com

### Col Jackson

Over 20 years propagating experience Member of the Latrobe Valley APS Victoria coljackson57@hotmail.com

### Spencer Shaw

We operate two nurseries,
Brush Turkey Enterprises Wholesale
www.brushturkey.com.au and
Forest Heart Eco-Nursery
www.forestheart.com.au
and specialise in SE QLD native plants,
particularly rainforest.
spencer.shaw@brushturkey.com.au
0428 130 769

### **Helen Howard**

grevillea.hh@gmail.com
I have grafted Eucalypts, Grevilleas,
Eremophilas and Brachychitons. My
teacher was Merv Hodge. If any BG has a
project I could help out with let me know.

The remaining seedlings are due to be planted in coming months.

# Summer soaking brings superb results for Endangered Orchid

NSW Dept of Planning & Environment March 23, 2022.

The endangered superb midge orchid has continued its streak of record breaking seasons, with a high number of plants found across the Southern Tablelands this summer.



Superb midge orchid (*Genoplesium superbum*). Image: www. environment.nsw.gov.au

Saving our Species ecologist Erika Roper said recent summer rains have prompted an explosion of these miniature raspberry-scented orchids in the bush near Nerriga and Braidwood.

'Before the fires there were only a handful of known plants and historical records, but since 2020 we have discovered more than 300 plants spread over 3 sites,' Ms Roper said. 'The number alone is impressive but even more so when you consider just how hard it is to find this plant.

'Like many orchids, midge orchids spend much of the year below ground as a tuber, before putting up a single narrow stem that develops a flower spike. 'The stem looks exactly like a chive, the kind you grow in the veggie garden, so even when you know exactly what you are looking for, it's still tricky surveying for this tiny plant.

'Fortunately, orchid-spotting is my superpower and I've found some emerging stems that are only around I centimetre high. 'We're into our third summer of soaking rains and we think that is why we are seeing such a response from this and other threatened and common midge orchid species in the area. 'The fires also reduced many of the threats to this species, such as grazing by herbivores, allowing the orchids to live up to their name and put on a superb show.

'Coloured varying shades of dark pink and purple with fringed 'petals', they are one of the prettiest orchids around, but most people have never seen or even heard of it.

'Last month's surveys also found new plants growing in unburnt areas, including along wombat tracks and roadsides, and we have installed temporary cages to protect these individuals from damage. 'It's just amazing to see these extremely rare and pretty unusual looking plants bouncing back.

'It really reconfirms the extraordinary and resilient biodiversity that can be found in this part of the world,' Ms Roper said.

The Saving Our Species program is investing almost \$100,000 into orchid conservation in the Illawarra and surrounding regions. This funding supports ecologists like Erika to commit resources towards threat control, surveying and monitoring, all of which help secure species like the superb midge orchid into the future.

### Phosphite and Phytophthora Dieback

Phytophthora cannot be eradicated from a site once it becomes infested. The only chemical treatment currently available is phosphite, a systemic, non-hazardous and biodegradable fungicide. At the rates used for the treatment of dieback in native ecosystems, phosphite does not kill or eradicate Phytophthora - rather it is believed to suppress the pathogen and boost the plant's natural defence responses to infection. You may need to apply for a license to use it in the field. For more information go to

https://www.dpaw.wa.gov.au

### Pandanus planting Emu Park and Yeppoon 9 & 10 April

Information courtesy of Jamie McKenzie (FBA Comms team) via the FBA Facebook Page "I believe in a sustainable CQ", Reprinted in The Venusta Iss. 1

Joel Fostin's message about saving the two local species of Pandanus was well received with 20 volunteers who came to hear about the range of threats to the Pandanus as well as strategies for saving and re-establishing stands of the plant in our region. As well as learning all about the Pandanus, the volunteers got hands on and helped to plant a few thousand 'seeds' in the local beaches.



A happy group of volunteers - Emilyanne Bell

Planting of the seeds is important to help the recovery of the Pandanus along our coast line after the impact of 'pandanus-dieback', courtesy of the native leaf hopper from the north.

The Pottiputki seedling planters proved to be most useful to easily plant the Pandanus seeds to the target depth. With the help of them, 1500 pandanus seeds managed to be planted at Fisherman's Beach on the Saturday alone. The next day a further 1000 pandanus seeds were planted at Kemp Beach.



The Pottiputki planters were a hit! – Bethlea Bell. Thanks to Livingstone Shire Council Nursery and to Greening Australia for the loan of them.



Joel leading the way – Bethlea Bell
This is a fantastic project sponsored by Fitzroy
Basin Association through the Australian
Government's Reef Trust.



Australia has a wealth of unique plant species, with many plants found nowhere else in the world. To protect these plants, we need to know what is happening on the ground, and how

plants across Australia are faring against threats such as habitat loss, disease, fires and floods.

Citizen scientists, bushwalkers and botany groups have on-ground knowledge of what's happening to plants in their area. A new citizen science project, Flora Connections wants to connect this community plant knowledge to conservation decision making. Flora Connections provides guides and a data sheet to collect information on plant species- where the plant is growing, how many plants there are and what the threats to the plant might be. Data can then be uploaded via the website to the Atlas of Living Australia, where it will be used by the scientific committees and land managers trying to protect plants across Australia.

Visit <u>floraconnections.com</u> to learn more, print out a data sheet and get involved!

(Reprinted from Banksia Bytes 28 - May 22)

### **ANPC** events

<u>'Plants Going Places' Victorian Translocation</u> <u>Symposium</u> 21 and 28 July. Online

<u>'Plant Treasures – in conversation' webinar series</u> June as part of the promotion of the recently released <u>Germplasm Guidelines</u>.

<u>Ist International Plant Translocation</u> <u>Conference</u> June

BGCI/BGANZ 7th Global Botanic Gardens Congress September.

<u>14th Australasian Plant Conservation</u> <u>Conference</u> (APCC14) 2024, following the recent success of APCC13.

# Climate change is killing trees in Queensland's tropical rainforests

Lucas Cernusak, Susan Laurance The Conversation, May 19, 2022

In recent years, the Great Barrier Reef off Australia's northeast coast has seen multiple events of mass coral bleaching as human-caused global warming has driven sustained high temperatures in the ocean. Alongside the Coral Sea is another spectacular natural wonder: the rainforests of the World Heritage-listed wet tropics of Queensland.

It turns out the same climate change forces contributing to coral bleaching have also taken a toll on the trees that inhabit these majestic tropical rainforests. In new research, we and our co-authors found that mortality rates among these trees have doubled since the mid 1980s, most likely due to warmer air with greater drying power. Like coral reefs, these trees provide essential structure, energy and nutrients to their diverse and celebrated ecosystems.

### A 50-year record

Our study was based on 20 plots of trees in rainforests in northeast Queensland, which were created and monitored in a project be gun in 1971 by a forest scientist named Geoff Stocker. These plots were later incorporated into the Wet Tropics of Queensland World Heritage Area, and the monitoring has been carried on by CSIRO scientists based in Atherton, Queensland. The plots are typically half a hectare (5,000m²) in size. In each plot the species and diameter of all trees larger than 10cm diameter at breast height were recorded.

The plots were revisited at intervals ranging from two to about five years. Tree diameters were recorded again, along with any new trees that had grown into the 10+cm size class, and any trees that had died. Over the years, a few additional plots were initiated and contributed to our analyses. But these 20 provided a uniquely long record and formed the core of the dataset.

Read more

# Banksia conferta A. S. George subsp. conferta

Critically endangered



B. conferta subsp conferta

Image: australianseed.com

Shrub to 4 m, rather irregular. Bark roughly tessellated, grey. Branchlets hairy becoming smooth, orange, red or brown. Leaves whorled, elliptic to obovate, 3.5-12 cm long, 0.7-4 cm wide, entire, somewhat undulate, with hairs above becoming smooth, hairy below, becoming smooth on the nerves but otherwise with white hairs.

Flower brushes are cylindrical, 7-19 cm long, 5-6 cm wide at flowering. Flowers yellowishgreen to pinkish-brown in bud, golden when open; styles pale yellow. Old flowers are persistent for several years. Cones have many narrowly elliptic follicles, 8-15 mm long, 2-6 mm high, 3-5 mm wide; the valves become smooth where exposed but mostly remain closed until burnt. Seed is obovate, 14-17 mm long; with a 6-7mm wide wing.

In NSW, Banksia conferta subsp. conferta is currently known from a single population occupying c. 14 ha. in the Coorabakh National Park, north west of Lansdowne. The population here comprises a low number of mature individuals (approximately 500-1000 plants at varying stages of development) with c. 10% of individuals occurring along a roadside (I. Turner, pers. comm.).

Banksia conferta subsp. conferta is found on exposed rocky slopes in well-drained skeletal soil derived from high-quartz conglomerate.

It occurs in comparatively low open forest with a dry sclerophyll understorey (Griffith 2005).

It is also known from the Lamington Plateau and the Glass House Mountains in Queensland, more than 400 km to the north of Lansdowne, where it occurs on steep rocky slopes of granite and sandstone in scrub (George 1999).

Standing plants of *B.conferta* subsp. *conferta* are single-stemmed and likely to be killed by fire, while its seeds are held within woody cones, released after fire (George 1999).

Plant species with these life-history characteristics are entirely dependent on canopy-stored seed for persistence after fires, and their populations are susceptible to declines or extinctions when fires recur at very short or very long intervals (Keith 1996). The death of standing plants in a fire and reliance on a canopy seed bank for regeneration may result in no overlap between successive generations of plants at a site (Griffith 2005).

B. conferta subsp.conferta is threatened in NSW due to its very highly restricted distribution and small population size. Fire regimes may pose a threat if successive fires burn large portions of the population within periods of time less than about one decade. Road maintenance and fire management operations also pose a potential threat to parts of the population adjacent to roadsides. It may be inferred from these threats that the species is suffering a continuing decline or will suffer a projected decline in abundance, geographic distribution or habitat quality.

Ref: https://www.environment.nsw.gov.au/ Topics/Animals-and-plants/Threatenedspecies/NSW-Threatened-Species-Scientific-Committee/Determinations/Finaldeterminations/2004-2007/Banksia-conferta-A-S-George-subsp-conferta-criticallyendangered-species-listing

### **Seed and Cuttings Exchange**

Please send all requests directly to the person making the offer or the group email <a href="mailto:saveourflora@gmail.com">saveourflora@gmail.com</a>
Please follow the correct protocols for requests of seed or cuttings. These are detailed on the next page. Please note that some species are in very short supply and cutting material may be limited.

### Maria Hitchcock saveourflora@gmail.com

Boronia clavata, Boronia keysii, Correa eburnea, Correa calycina, Correa baeuerlenii, Callistemon pungens, Grevillea iaspicula, Grevillea juniperina, Melaleuca irbyana, Phebalium daviesii, Phebalium speciosum, Prostanthera askania, Prostanthera staurophylla, Zieria adenodonta, Zieria prostrata, Zieria floydii.

I am also licensed to sell some endangered species through my online nursery. All are grown from seed and cuttings taken from established garden plants. <a href="https://coolnativesnursery.com">https://coolnativesnursery.com</a>

**Denise & Graeme Krake** (seed only) 752 Warrigal Range Rd. Brogo NSW 2550 Hakea dohertyi, Hakea ochroptera Hakea longiflora, Grevillea maccutcheonii

### **Geoff & Gwynne Clarke**

Grevillea humifusa - cuttings

Angophora robur - seed

Dodonaea crucifolia - cuttings or seed

This was named a couple of years ago by Ian Telford Many people were calling it Dodonaea hirsuta, but it is not very hairy and has no hairs at all on the fruits. It also grows in a nearby flora reserve. I have grown it successfully from cuttings, but it does not live long after planting out. It also produces seed and I can collect that after the next flowering (spring fruits). It grows happily around the block, popping up from seed here and there, produces plenty of seed, but it is not long lived even when self sown. Fruits are showy reds.

**Paul Kennedy** (Leader ANPSA Hakea SG) (saveourflora@gmail.com)

Hakea dohertyi, Hakea ochroptera, Callistemon megalongensis. The seed originally came from the Melaleuca Study Group seed bank many years ago.

### **Will Chance**

Senna acclinis

Do you have any EPBC plants growing in your garden with sufficient foliage to share cuttings (or seed) with our members? Let me know and I'll print it here. It would be easier if we can add your address so that members can contact you directly. Please make sure you follow the protocols on the back page. (Ed)

Don't forget to update your listing at least once a year!

Is your garden
a threatened species

Sanctuary?

All you have to do is grow
one or more
endangered species
Many are already
widespread in gardens
around Australia
Look for a nursery
licensed to sell
rare flora

### Requesting and sending seed by post

Please follow these simple steps.

### Make a request

- 1. Send your request by email first. It will be forwarded to the grower so you can request seed and ask for the address.
- 2.Send your request enclosing a self-addressed envelope with two \$1.10 stamps attached. Post the envelope.

### Send seed

 When you receive an envelope with a seed request, package up the required seed which includes the name, provenance (if known) and date of collection. Add any tips on germinating the seed and post.

### **Receiving seed**

1. Seed should be stored in paper (small manilla seed packets are best but any cheap envelopes will do) and kept in a cool dark place. Some people use those small paper lolly bags and staple them at the top. Add mothballs if you like. This will prevent insect attack. I save moisture absorbers from medicine bottles and add them to my seed drawer to ensure the seeds do not rot.

Seed life varies according to species. Acacias will last for many years while Flannel Flower needs to be really fresh. Old seed may not germinate and needs to be thrown out. Test some of your seed periodically. It's worth asking seed suppliers for the age of certain species of seed before purchasing.

### Requesting and sending cuttings by post

Please follow these simple steps.

### Make a request

- Send your request by email first. It will be forwarded to the grower so you can request cuttings and ask for the address.
- 2. Purchase an Express Post small satchel. it will hold up to 500 gms.
- 3. Self address your satchel and place it in an envelope with your cuttings request. Add a label/s with the name of the species and sender. Pencil is best for writing on labels.
- 4. Post the envelope.

### Send cuttings

- 1. When you receive an envelope with a satchel inside, cut about 6 stems of the requested species. The best time to do this is early morning. Store cuttings in the crisper part of the fridge until they are ready to be posted.
- Wrap the cuttings in damp newspaper and place them in a cliplok plastic bag. Make sure you label each parcel with the names of the species and sender. Squeeze air out of the bag and fasten top.
- 3. Put the bag in the satchel and post.

### **Receiving cuttings**

1. As soon as you receive your cuttings put the unopened plastic bag in the crisper part of the fridge until you are ready to prepare them.

### **Group Members**

### **ANPSA Groups**

APS Echuca Moama Vic APS Melton Bacchus Marsh Vic APS Sutherland NSW NPQ Ipswich Qld NPQ Sunshine Coast and Hinterland Qld

### **Botanic Gardens and Reserves**

Burrendong Arboretum Wellington Crommelin Native Arboretum NSW Hunter Regional BG NSW Lindum Park Flora and Fauna Res Tamworth Regional BG NSW

Swan Reserve Garden Vic

### Nurseries

Bilby Blooms Binnaway NSW Cool Natives Armidale NSW Mole Station Tenterfield NSW Forest Heart Eco-Nursery SEQId

## Seed Suppliers Victorian Native Seeds

Study Groups
Acacia SG
Correa SG
Garden Design SG
Grevillea SG
Hakea SG

### Landscapers

Brush & Bush Tamworth NSW Indigenous Landscape Design www.ilda.com.au

### Other

www.malleeconservation.com.au