



**AN ONLINE INDEPENDENT NATIONAL PROJECT**  
**CONSERVATION THROUGH CULTIVATION**

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**Project launched on 14th November 2013**

**Maria Hitchcock OAM**  
 Founder, Bulletin Editor

**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.



*Correa lawrenceana* var *genoensis* Paul G Wilson

Image: M. Hitchcock

See article p. 3

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***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:*

This year we saw the resurgence of Earth Day. Earth Day began in 1970. The idea of Earth Day first originated among people fighting the 1969 Santa Barbara oil spill. It is said that American senator Gaylord Nelson, one of the main proponents of the event, was flying over the disaster in an aeroplane and was so shocked by the scale of it that he decided to create a Day to help prevent future cases.

I remember trying to encourage our local community to switch off the lights for Earth Hour back in the 90s. I'm not sure I was very successful. You need either the government or a major institution to publicise the event and mobilise the community. Fortunately, with the election of the Biden administration we now have a world leader who wants to make a difference. This can only be a good thing for our environment as well as trying to contain the climate crisis.

Here on the frosty New England Tablelands, winter has come early with light frosts almost continuously from the second week of April. We have been suffering a terrible mouse plague due to the explosion of weeds and grasses following a major drought. It is symptomatic of the imbalance caused by modern land use and agriculture. Sustainability is a useful catch cry but it is largely meaningless in practice. We chip away at the edges throwing our bottles into recycling which makes many of us feel virtuous. At the same time Australia continues to burn fossil fuels for energy and subsidise technologies which experts say will become stranded assets.

It can be very frustrating watching greed in action at the highest levels and not being able to do much about it. We can help to preserve our rare and endangered flora by growing as many species as can be legally obtained and sharing cuttings or seed with friends and colleagues. Why not become a volunteer with a Botanic Gardens Friends Group? Many volunteers assist with propagating for their collections. Another way is to set a goal of assembling a living collection of one species in your garden. That will give both you and the garden a special focus.

I hold the National Correa Collection and while it does require a fair bit of work and attention, it has led to a huge amount of interest from outside.

Let's Celebrate!

27th March  
Earth Hour

22nd April  
Earth Day

5th June  
World Environment Day

2nd August  
National Tree Day

1st September  
National Wattle Day

7th September  
Threatened Species Day

8-15th November  
Pollinator Week

This week Gardening Australia filmed the garden with a special focus on the Correa Collection. The program will go to air at the end of June I believe. Preparing the garden for this event was quite a task especially trying to control the weed explosion which we experienced in summer and autumn. The GA team also filmed at Wattle Ridge Indigenous Protected Area east of Guyra, which is managed by the Banbai Rangers. The Rangers help to protect the land's wildlife habitats, educate visitors on the conservation values, run a seed nursery for revegetation of degraded areas, map and control feral animals and promote the biodiversity of the area. So many of us are doing our bit. Together we can make a huge difference to our country and planet and inspire others to do the same.

## FINAL NATIONAL PRIORITISATION OF AUSTRALIAN PLANTS AFFECTED BY THE 2019-2020 BUSHFIRE SEASON

pdf document available for download

<https://www.environment.gov.au/system/files/pages/289205b6-83c5-480c-9a7d-3fdf3cde2f68/files/final-national-prioritisation-australian-plants-affected-2019-2020-bushfire-season.pdf>

### Bushfire Conference – 4-6 May 2021 (online)

The Nature Conservation Council

[12th Biennial Bushfire Conference online.](#)

Theme *Cool, Warm, Hot: the burning questions*

How different fire intensities can influence ecosystems and communities in a changing climate, with presentations by academics, agencies and practitioners.

Presentations will investigate the effects of low, medium and high-intensity fires on the four sub-themes: climate change; fire ecology; ferals, weeds and restoration; and community resilience. The conference will examine how to incorporate and respond to cool, warm and hot fires in fire management as part of an optimal fire regime to achieve multiple objectives for biodiversity and cultural values, hazard reduction objectives and community resilience.

This is a three day conference with one face to face field day at North Head on Friday 4th June from 9am - 3pm. There are two online sessions each day of the Conference from 9.30 - 11.30am and from 2-4pm (4.30pm Thursday)

A three day bundle for an individual/govt/corp. costs \$230.00 and the field day \$130.00. Concession fees are available.

For a program and to purchase a ticket go to

<https://www.nature.org.au/healthy-ecosystems/bushfire-program/bushfire-conference-2021/>

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

### *Correa lawrenceana var genoensis*

Paul G. Wilson

Within NSW, *Correa lawrenciana var. genoensis* is known from a single location along the Genoa River in the vicinity of the Victoria/New South Wales border. The species also occurs along the Genoa River on the Victorian side of the border. It is estimated that there are approximately 200 individuals left in NSW and the species is not located in any conservation reserves making it highly vulnerable to catastrophic events and localised extinction.

A recovery plan was released in 2010 and it was to run for five years. It is unknown what was achieved in that time. Fortunately the species is being propagated and distributed in the wider community.

The National Recovery Plan can be downloaded [here](#)

## ANPC News

One of the challenges of conserving plants is that it can be difficult to find and distinguish between genetically distinct lineages. Take the Nerriga Grevillea (*Grevillea renwickiana*) for example. This Endangered species is represented by a single clone in most populations. Clones are genetically identical. Genetic variation is important because it allows a population to adapt to changing environmental conditions. To add to the challenge, the Nerriga Grevillea flowers irregularly and is often sterile. [Read Edward McAuliffe's case study](#) to discover how these challenges were overcome to develop an *ex situ* conservation plan for all the clonal lineages of this species.

### **Community group needs your help to map native orchids in Macarthur region – Jess Layt, 4 December 2020**

The Macarthur Australasian Native Orchid Society (MANOS) is conducting a survey of native orchids in the region, and they need your help to complete the task.

[Read more.](#)

### **Australia-first research reveals staggering loss of threatened plants over 20 years –*The Conversation*, 16 December 2020**

New research shows the population sizes of our threatened plants fell by almost three-quarters. The findings were drawn from Australia's 2020 [Threatened Species Index](#), which combines data from almost 600 sites.

[Read more.](#)

## 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](mailto:coljackson57@hotmail.com)

**Spencer Shaw**

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

**Helen Howard**

[grevillea.hh@gmail.com](mailto: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.

## Australian scientists warn urgent action needed to save 19 'collapsing' ecosystems

**Adam Morton** *Environment editor*

@adamlmorton

Fri 26 Feb 2021

### A 'confronting and sobering' report details degradation of coral reefs, outback deserts, tropical savanna, Murray-Darling waterways, mangroves and forests

Leading scientists working across Australia and Antarctica have described 19 ecosystems that are collapsing due to the impact of humans and warned urgent action is required to prevent their complete loss.

A **groundbreaking report** – the result of work by 38 scientists from 29 universities and government agencies – details the degradation of coral reefs, arid outback deserts, tropical savanna, the waterways of the Murray-Darling Basin, mangroves in the Gulf of Carpentaria, and forests stretching from the rainforests of the far north to Gondwana-era conifers in Tasmania.

The list of damaged ecosystems extends beyond the continent to include subantarctic tundra of world heritage-listed Macquarie Island and moss beds in the east Antarctic.

The study's lead author, Dr Dana Bergstrom from the Australian Antarctic Division, said 19 out of 20 ecosystems examined were experiencing potentially irreversible environmental changes, including the loss of species and the ability to perform important functions such as pollination.

Bergstrom said the collapses were a result of the ecosystems experiencing multiple pressures simultaneously. Some, such as rising average temperatures due to the climate crisis, habitat loss and invasive species, are chronic. Others are acute short-term events, many of them exacerbated by global heating. They include heatwaves, fires and storms. While the report paints a dire picture, Bergstrom said a key message was that action now could still make a difference.

"None of the 19 ecosystems has yet collapsed across its entire range, but for all case studies there is documented evidence of ecosystem collapse in some areas," she said.

"Urgent action will be essential to prevent the loss of any of these ecosystems in their entirety.

"Previous in-depth studies – including the government's **state of the environment report** and last year's **review of the national environment laws by the former competition watchdog head Graeme Samuel** – have found Australia's natural heritage is in a perilous and worsening state, but they have mostly not considered in-depth what is happening within ecosystems.

The new report, which is published in the journal *Global Change Biology*, involved trawling peer-reviewed scientific papers and other reports to collect empirical data of the health of ecosystems, and assessing the results against criteria to determine whether they had changed state.

All but one of the ecosystems was found to have a low likelihood of recovery and to be heading towards permanent collapse. The exception was the subtropical rainforests of coastal New South Wales, which have been damaged to a lesser extent.

The scientists recommended a new framework to try to prevent ecosystems collapsing completely that they called the "3As". It would require a greater awareness of the value of ecosystems, better planning to anticipate risks and rapid action to reduce them.

Among the examples in the report are the alpine ash forests of Victoria, which were found to be so frequently hit by fire that they often did not have enough time to produce seeds. In response, scientists had begun planting hybrid species that may cope better in the changed conditions.

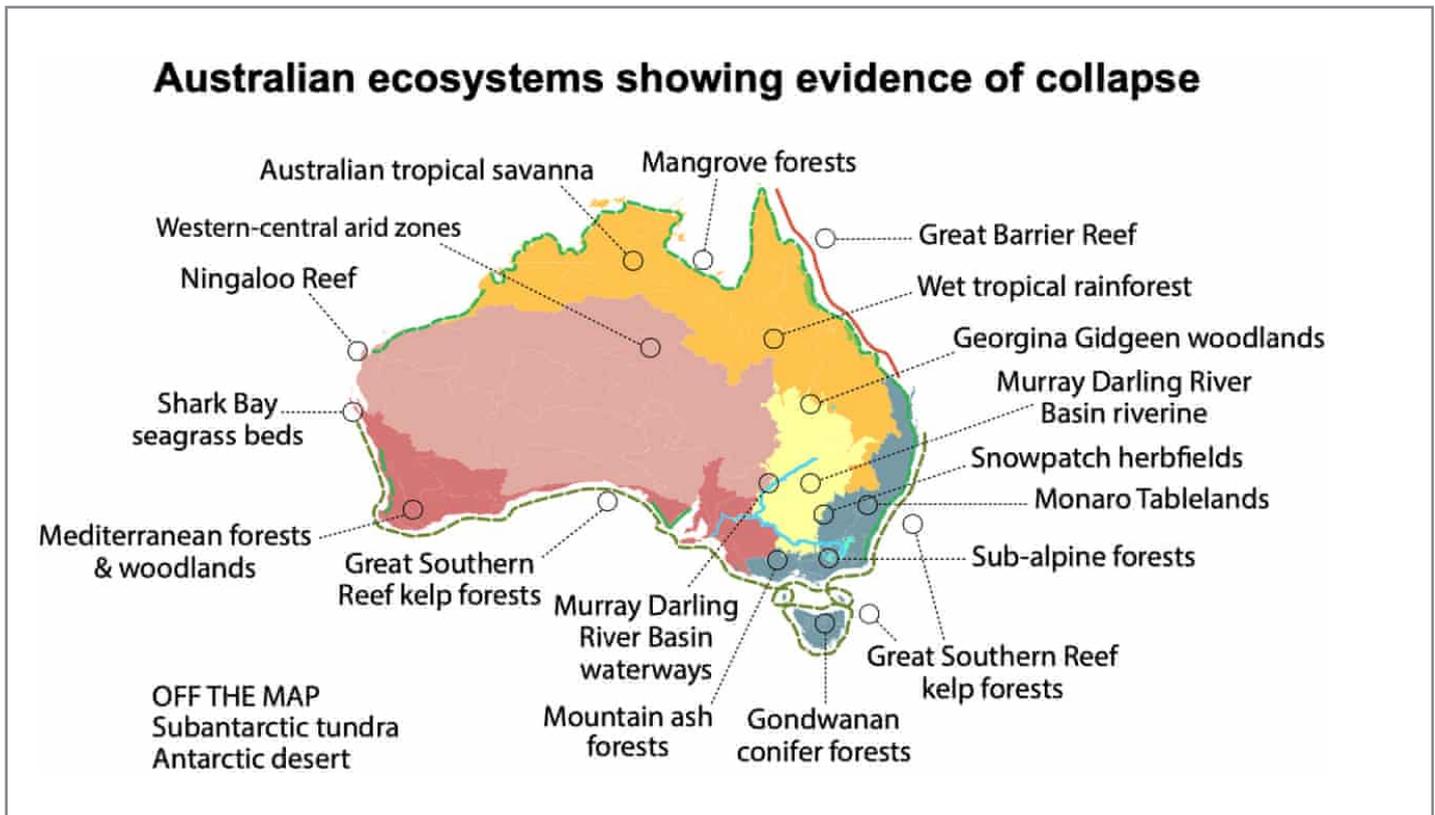


Illustration: Mary Cryan

Prof Euan Ritchie, from Deakin University and one of the authors, said the report was arguably the most comprehensive analysis of Australia's environment to date. "It is confronting and sobering," he said.

He cited the example of the tropical savannas across northern Australia that had been degraded by frequent fires, overgrazing by livestock and feral animals, invasive species including gamba grass, feral cats and cane toads, and, increasingly, extreme weather events.

It meant once-widespread native species such as the brush-tailed rabbit-rat were now rare and found in the few places where good habitat remained. "Improving fire management [and] feral animal and weed control are easily achievable steps we can take to protect this ecosystem and its remarkable and unique species, which also have significant cultural and economic value," he said.

Bergstrom said while the idea that nature would take its own course was still pervasive, it was now time "to actually interfere with nature because we're losing too much if we don't".

She said it was important to acknowledge work to bolster the environment was happening – from landcare and conservation groups and through actions supported by federal and state governments, including Indigenous ranger programs – but the report showed a more urgent and targeted response was needed.

"People talk about climate change as something in the future. Climate change is here and collapse is coming," she told Guardian Australia. "But we have the ability and we have the skills. We just need the willpower to make it happen."

[Read more](#)

## The ambitious (and expensive) plan to insure Australia's flora

Luke Slattery *Financial Review* 27 April 2021

In early 2019, Neville Walsh, a botanist at the Royal Botanic Gardens Victoria, was sifting through clippings, seed pods and blurry botanical photos sent by mail from a plant enthusiast at [Cobungra](#), in the Victorian high country, when he spotted a few “genuinely rare species”. He decided to visit the property, owned by octogenarians Anne and Jim U'Ren, and found himself scrambling down a steep gully to the banks of a silvered creek where he noticed a curious wattle. “I thought, ‘Bloody hell, what’s this?’” he recalls.

On the basis of samples taken that day, he identified a new wattle species, which he named *Acacia ureniae* after the property’s owners. Walsh returned in October that year and was lucky to see the wattle in full bloom. Then, in January last year, [disaster struck](#). As fire tore through the Victorian alpine region, the residents of Omeo, 25 kilometres west of Cobungra on the Great Alpine Road, watched in horror as the sky bloomed red with flame. Moments later, smoke and cinders engulfed the town. About 50 residents were evacuated by helicopter.

Walsh and his team returned to the U'Rens’ property in February to find that of the estimated 80 *Acacia ureniae*, only four clung precariously to life in the charred landscape. Fortunately, the specimens he had collected on his two earlier visits had been stored at the Victorian Conservation Seed Bank in Melbourne’s botanic garden. From there they can be propagated and, if necessary, replanted in their natural habitat.

“In the case of *Acacia ureniae* we had a new species one moment,” reflects Tim Entwisle, director and chief executive of Royal Botanic Gardens Victoria, “and we almost lost it overnight. It can happen when you have a very small plant population in an equally small area, and we’ve had this happen to native orchids. You just need the fire to come through at the wrong place and the wrong time of year and you

can lose the whole thing. Forever. Our seed bank is our insurance policy.”

The found-and-almost-lost story of *Acacia ureniae* stiffened Professor Entwisle’s resolve to press ahead with an ambitious multi-stage expansion of the Royal Botanic Gardens Victoria (RBGV); part of his plan to put the gardens on an activist footing. Many of the world’s great botanic gardens are green oases attached to sprawling cities; places to stroll, to fill the lungs and enjoy a little piece of the plant kingdom, neatly classified and curated.

As Entwisle sees it, Melbourne’s artfully landscaped botanic garden, which turns 175 this year, will never cease to be a source of pleasure, leisure and reviving a connection with nature. But he likens the botanic garden of the future to a terrestrial “ark”, or bio-sanctuary with a vital role to play in plant conservation and species adaptation in an era of [climate change](#).

Entwisle’s immediate focus is the seed bank and its neighbour, the National Herbarium of Victoria. The former is a repository of seeds representing more than 1000 species, one-third of them endangered; the latter, founded in 1853, is a working museum of dried plants and fungi. Both collections, housed in a 1930s building that is neither watertight nor fireproof, are threatened by rats and bugs. [Read more](#)



*Acacia ureniae* Image: Neville Walsh  
<https://vicflora.rbg.vic.gov.au/flora/taxon/a5f551e8-4ba3-4aa8-9e37-e546576b2504>

## Threatened Species Recovery Hub

### *Action Plan for Australia's Imperilled Plants*

2020 J. Silcock, T. Collingwood, T. Llorens and R. Fensham Released April 2021

The plan aims to help prevent extinctions of Australia's imperilled flora through collation of existing knowledge and clear statement of required recovery actions.

More than two-thirds of imperilled species are long-lived trees and shrubs, eight are ground orchids, seven are perennial forbs (including one fern) and two are annual forbs. Imperilled species are concentrated where centres of endemism (Crisp et al. 2001) correspond with highly-modified agricultural and urban landscapes: the east, south-east and south-west of the continent (Figure 1). Imperilled species come from only 26 of Australia's 89 bioregions. Western Australia accounts for 14 species, all from the heavily-cleared and high-endemism Southwest Australian Floristic Region (Hopper and Gioia 2004), particularly the Avon Wheatbelt bioregion where six imperilled species occur.

Twelve species are endemic to Victoria (including two that previously occurred in other States where they are now considered extinct). While half of these occur in heavily-cleared bioregions such as the Southern Volcanic Plain, South East Coastal Plain and Riverina, the other six are narrow-range mountain endemics that face a variety of intensifying threats.

Thirteen species occur in New South Wales and 11 in Queensland (including five found in both States). Eight of these occur in South Eastern Queensland, where historic and ongoing land clearing for agriculture and urbanisation has been exacerbated by the recent arrival of myrtle rust. Tasmania has three species, and South Australia two

Download the document [here](#)

## University of NSW Newsroom

*Post-bushfire environmental recovery: citizen scientists capture thousands of observations*  
17th March 2021

More than 200 citizen scientists have contributed thousands of post-bushfire observations to UNSW's Environment Recovery Project. The data helps scientists understand how some areas recover better than others, and which animals and plants come back first – information that can help inform recovery plans.

The paper published in the journal *Science of the Total Environment* presents first results from the Environment Recovery Project. Lead author of the paper Casey Kirchhoff, a PhD candidate at the UNSW Centre for Ecosystem Science (CES), founded the project after the Morton bushfire destroyed her Wingello home in January 2020. The fire started from a single lightning strike, becoming what was named the Currowan fire, before growing to impact 144,000 ha and destroy many houses, including Casey's.

Mrs Kirchhoff's passion for the environment and natural curiosity inspired her to start tracking the post-fire recovery of the environment surrounding her property, despite her loss. "I realised I was probably among a handful of scientists collecting this information. So, I thought, why not ask citizen scientists to share their photos? The bushfires have burnt such a large area; it's impossible to properly survey it with our current resources," she said. "The more observations we can collect, the more we will know about the impact of the fires on our environment – particularly in the major bushfire areas in southeastern Australia up to Queensland and right across to the southwest."

The researchers said the unprecedented scale of the fires in eastern Australia in 2020 provided a clear example of the challenges faced by scientists and conservation biologists as climate changes. 240 participants submitted over 3200 observations in fire-affected areas of Australia, spanning a study area of nearly 51 million hectares.

[Read more](#)

## Seed and Cuttings Exchange

Please send all requests directly to the person making the offer or the group email [saveourflora@gmail.com](mailto:saveourflora@gmail.com)

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](mailto: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.

<https://coolnativesnursery.com>

**Arthur Baker**

55 Moran ST Gatton Qld 4343

*Gardenia psidiodes*  
*Grevillea quadricauda*  
*Phaius tancarvilleae*  
*Phaius australis*  
*Kunzea flavescens*  
*Kunzea graniticola*  
*Lilaeopsis brisbanica*  
*Choricarpia subargentea*  
*Spathoglottis pauliniae*  
*Spath plicata*  
*Murdannia graminea*  
*Thysanthus tuberosus*

**Charles Farrugia** ([saveourflora@gmail.com](mailto:saveourflora@gmail.com))

*Eremophila denticulata* ssp *trisulcata*  
*Eremophila denticulata* ssp *denticulata*  
*Eremophila nivea* (blue form)  
*Eremophila nivea* (white form) - limited.  
*Eremophila vernicosa* – extremely limited

**Russell** ([saveourflora@gmail.com](mailto:saveourflora@gmail.com))

*Boronia clavata*

**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](mailto: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 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!

## 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

1. 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

1. 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.
2. Wrap the cuttings in damp newspaper and place them in a clielok 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 SEQld

### Seed Suppliers

Victorian Native Seeds

### Study Groups

Acacia SG  
 Correa SG  
 Epacris SG  
 Garden Design SG  
 Grevillea SG  
 Hakea SG

### Landscapers

Brush & Bush Tamworth NSW