

# Save our Flora

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

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**Project launched on  
 14th November 2013**

**Maria Hitchcock OAM**  
 Administrator, Bulletin Editor

### **Membership**

Individuals: 222

Groups: 22

International 3

Membership is free.

Please encourage others to join.

Quarterly Bulletins are sent by email  
 only. Feel free to pass them on.

New members will receive the latest  
 e-Bulletin only. Earlier Bulletins can be  
 accessed online. (See box)

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  
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Cephalotus follicularis  
 Albany Pitcher Plant  
 Image: [Blog - TypePad](#)

**Is your garden a  
 native plants  
 sanctuary?  
 All you have to do  
 is grow one or  
 more threatened  
 species.**

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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>



# Save our Flora

## **Maria writes:**

The drought continues in most of northern and western NSW and the question of water security is the barbecue stopper these days. Armidale is on Level 4 water restrictions (first time since the 60's) and trucks are taking treated water to Guyra which is running out. The new pipeline from Malpas won't be finished for at least another month. The State Govt is helping pay for this as Council simply couldn't afford the enormous cost. Our home dam is dry and there's a trickle left in the house tank. Thankfully we still have bore water. We are in unknown territory here. The long range forecast is pessimistic. Fortunately the Tablelands in winter can survive on little rain due to practically no evaporation. We have had misty mornings with low cloud to ground level adding a few mls now and then.

Almost everyone has de-stocked and consumers won't really feel the brunt of high meat prices until re-stocking starts. Hay is almost impossible to get and substitute feed is now being carted all over the place to keep valuable breeding stock alive. Reports are coming in of hillsides of native vegetation dying. Then there are the dead fish in the rivers which have stopped flowing. How did we come to this? There seems to be a myth in the bush that droughts come and go, farmers get enough handouts to survive and life goes on. That's OK if there are good policies in place to protect environmental flows and water for townships along the rivers. I think successive governments are to blame for a lack of planning and spending on the right sort of water infrastructure. Over the years more and more water hungry crops like cotton have been allowed along river flats. Water allocations and large storage dams have all depleted the amount of flow. What is to be done? Researchers are now calling for a halt to this type of cropping. Will they be heard? Who knows?

Here on the Tablelands everyone used to run sheep. Then the bottom fell out of wool and people turned to cattle which require far more water than sheep. In dry times the once reliable water holes dried up. Now we are starting to see a shift back to sheep. It's a crazy world. The last big dry here was just 5 years ago - people who were affected haven't had time to recover. I suspect a number of family farms will be forced to sell out to big corporations. This has already happened across many parts of Australia. The corporations are often foreign owned and don't have an emotional attachment to our land. Now more than ever do we need responsible government with long term plans for the future. We all need to do our bit in holding our political representatives to account.

*Maria Hitchcock OAM*

## **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)  
or as a CD**

**Send me a C5 stamped addressed  
envelope**

**Attach 2 stamps  
or on a memory stick**

**Send me a blank memory stick plus a  
stamped addressed envelope - 2 stamps**

**Do you have a contact  
at a local school?**

**Why not ask them to join**

**Save our Flora  
as a group member**

**More and more schools are  
establishing**

**Endangered Species Gardens  
featuring rare plants from  
their local environment.**

## We must rip up our environmental laws to address the extinction crisis

Don Driscoll, Desley Whisson, Euan Ritchie, Mike Weston, Raylene Cook, Tim Doherty

Deakin University

*The Conversation* 10/5/2019

Humans are causing the Earth's [sixth mass extinction event](#), with an estimated [one million](#) species at risk of extinction. Addressing this crisis requires transformative change, including more [effective environmental law and implementation](#).

Improved legislation is one of five main levers for realising change identified in the recent United Nation's global biodiversity [report](#) and the key lesson arising from the Senate's [interim report](#) into Australia's faunal extinction crisis.

The Senate's interim report, based on [420 submissions](#) and five hearings, shows Australia is a world leader in causing species extinctions, in part because Australia's systems for conserving our natural heritage are grossly inadequate.

To allow the continued erosion of this continent's spectacular and remarkable array of [globally unique plants and animals](#) is a travesty of the highest order.

### Inadequate protections

One of the problems is [species may decline from common to extinct quite rapidly](#) – faster than the time it takes species to be listed as threatened under the federal Environment Protection and Biodiversity Conservation (EPBC) Act.

The [Christmas Island forest skink](#) was formally listed as a threatened species only four months before the last individual died in captivity, but 15 years after the decline was first reported.

[Extinction](#) of the forest skink, Bramble Cay melomys and Christmas Island pipistrelle between 2009 and 2014 may have been averted if the risk was formally recognised in a more timely manner and effective conservation actions, such as captive breeding programs, were implemented.

**Currently, if a species is not listed, it is not a “matter of national environmental significance” and federal agency staff generally have no legal basis for acting to protect it.**

The [black-throated finch](#) has been listed as threatened on the EPBC Act for 14 years and during this time 600,000 ha of potential finch habitat has been destroyed. Worse still, five large coal mines, including the [Carmichael Coal Mine](#), have been given approval (pending environmental conditions being [met in Queensland](#)) to clear more than 29,000 ha of black-throated finch habitat in one of its final strongholds, the Galilee Basin.

Coal mining will drive these finches into the [critically endangered threat category](#), pushing them perilously close to extinction, and all with [federal government approval](#).

The controversial [Toondah Harbour development](#) in Brisbane is another example of how ministerial discretion can allow disastrous environmental outcomes. The project plans to build 3,600 apartments on wetlands that provide habitat for migratory waterbirds, including the critically endangered eastern curlew. Despite being described as “[clearly unacceptable](#)” by the federal environment department and knocking it back twice, the minister allowed a third submission to proceed for further assessment.

It was [reported](#) this decision was made in the **context of legal threats and donations from the developer in question**. If true, this context would make it very difficult to make impartial decisions that protect biodiversity, [as environmental law intends](#). Increasing ministerial discretion was a key result of 2007 amendments to the EPBC act, which meant [recovery plans](#) were no longer required for threatened species.

**The amendment allowed the minister to develop “conservation advices” instead of recovery plans.** This amendment downgraded protections for threatened species because a minister can legally make decisions that are inconsistent with conservation advice, but not a recovery plan.

## New environmental legislation

Based on these examples and many others that demonstrate the failings of current laws, [the interim report](#) concludes that **we should rip up the EPBC act and develop stronger and more effective environmental legislation.**

This includes establishing an **independent Environmental Protection Agency** to ensure enforcement of environmental laws, and, in a forward-looking addition by the Greens senators, **an independent National Environmental Commission to monitor effectiveness of environmental legislation and propose improvements.**

Australia needs a well-resourced, independent umpire for the environment, with powers to investigate environmental concerns and scrutinise government policy, akin to New Zealand's [Parliamentary Commissioner for the Environment](#).

**While Australia's Threatened Species Commissioner is an excellent champion for the environment, this role provides no ability to question government actions regarding environmental protection and nature conservation.**

Although replacing the EPBC act with new legislation may seem like a radical step to some ([but not all](#)), [the interim Senate report](#), and the [global UN report](#), have independently concluded major reform is essential. We are not in a moment of time when tweaking the current system will do the trick. Changing Australia's environmental legislation is a relatively minor update compared with the fundamental social and economic changes recommended by the UN report.

Such changes are already recommended by scientific societies like the [Ecological Society of Australia](#), non-government organisations like [Birdlife Australia](#) and the [Australian Conservation Foundation](#), and are demanded by a growing section of society. **New, fit-for-purpose legislation must be enforceable, apolitical and responsive.**

**Opinion polls show that the level of [environmental concern](#) is higher in Australia than in other countries , while [29% of ABC Vote Compass respondents](#) ranked the environment as the most important issue, up from 9% in 2016.**

This groundswell of environmental concern has spawned mass protest movements like [Extinction Rebellion](#). Young Australians also have shown their concern. In March 2019, [thousands of school students took part in 50 rallies across the country](#) to protest against "the destruction of our future".

Decisions about what and how much we buy, [what we eat](#), how much we [travel and by what means](#), and [family size](#), all contribute to our environmental footprints, and are the [fundamental instigators of the biodiversity crisis](#).

However, we must also look to our political leaders to support effective change. The simplest and most powerful action you can take to reverse the extinction crisis is to vote for a party with policies best aligned with [credible scientific advice](#) on how we can get out of this mess.

*Ed. By the time you read this the Federal Election will be over. The Coalition has been returned and we now have a new Federal Environment Minister, the Hon. Sussan Ley MP.*

[https://theconversation.com/we-must-rip-up-our-environmental-laws-to-address-the-extinction-crisis-116746?utm\\_medium=email&utm\\_campaign=Latest%20from%20The%20Conversation%20for%20May%2010%202019%20-%201305912182&utm\\_content=Latest%20from%20The%20Conversation%20for%20May%2010%202019%20-%201305912182+CID\\_98de90ec1966906a69a6444e760e5967&utm\\_source=campaign\\_monitor&utm\\_term=We%20must%20rip%20up%20our%20environmental%20laws%20to%20address%20the%20extinction%20crisis](https://theconversation.com/we-must-rip-up-our-environmental-laws-to-address-the-extinction-crisis-116746?utm_medium=email&utm_campaign=Latest%20from%20The%20Conversation%20for%20May%2010%202019%20-%201305912182&utm_content=Latest%20from%20The%20Conversation%20for%20May%2010%202019%20-%201305912182+CID_98de90ec1966906a69a6444e760e5967&utm_source=campaign_monitor&utm_term=We%20must%20rip%20up%20our%20environmental%20laws%20to%20address%20the%20extinction%20crisis)

## Government Urged To Save Carnivorous Plant Species

thewest.com.au 28 February 2019 Toby Hussey



Albany Pitcher Plant Image: thewest.com.au

Scientists have warned a little-known WA carnivorous plant could soon be extinct without immediate action. The Albany pitcher plant is an insect-eating plant found only in the moist soils of south-west WA between Augusta and Cheynes Beach, but it is under threat. Like most carnivorous plants, it feeds on insects including ants by luring them into its pitcher-like trap with a sweet nectar. Once the insect is inside there is no escape, and the plant absorbs it.

However, in a worrying sign Curtin University's Adam Cross warned land clearing and controlled burning had eradicated about 75 per cent of the 55-million-year-old species in a century. He said the plant had also become prized by poachers wanting an exotic plant for home — or a profit on the black market. “Surveys we've done suggest that fewer than 5000 plants are left in total, in less than 20 populations,” he said.

“The current (Department of Biodiversity, Conservation and Attractions) estimate is there's only about 3000ha of that habitat left. “It grows in an area that is just wet enough but not too dry, so it has a very narrow window of opportunity to grow within that rare habitat.” Dr Cross and colleagues at the University of Adelaide hoped their new book, *Cephalotus — The Albany Pitcher Plant*, would help educate about the plant and convince governments to grant it endangered status. It is a move Dr Cross said was vital to protecting the remaining native habitats.

“Our entire intent (was) to highlight the species as a beautiful and unique element of the Australian flora but also highlight its plight and provide an impetus for conservation and management,” he said.

“The first and foremost thing is protection of the remaining habitat ... there are still swamps that have been bulldozed in the past 12 months that have the plant.”

### 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.

## Botanic Gardens Videos

prepared by BGANZ Media

Botanic Gardens and Conservation

[https://www.youtube.com/watch?v=a24S-H\\_pugk&feature=youtu.be](https://www.youtube.com/watch?v=a24S-H_pugk&feature=youtu.be)

Melton Botanic Gardens

<https://www.youtube.com/watch?v=qbzAXNGg3II>

## Feral Deer App

From Friends of Royal National Park News

**DeerScan** is a free community resource for landholders, community groups and pest controllers. DeerScan can be used to map sightings, report problems or damage caused by deer, and document control actions. It can be used to inform your neighbours and local biosecurity authorities about current deer problems. You can use DeerScan to record new (and historical) observations of deer in your local area, as this will help to build a detailed picture of deer populations.

Go to

<https://www.feralscan.org.au/deerscan/default.aspx>

The associated free app for your mobile device is also available and will automatically map your location using satellite tracking and save the sighting for when you next get a phone signal. The web-site records all sightings and displays them on a map. The idea being that if everyone records sightings, authorities, (National, state and local), can more easily see the scale of the problem and have a scientific basis to request funds to do something about it.

Shooting is still being carried out, but is not really having much effect, we were told, on the overall problem. It works in some specific areas

to keep numbers in check, but in most of the country, deer populations are exploding.

The reason that the authorities are now starting to get serious is that it is now affecting farmers in particular and costing them real money in terms of lost production, having to instal expensive fencing to keep the critters out as well as more accidents between cars and deer on our roads.

As park users, we also know that the environment is getting trashed and plant species being lost. In the Royal, numbers are increasing despite shooting. Some local residents think they are sweet harmless creatures which need protection and actively encourage them by feeding them. Others who have their gardens denuded night after night are not so fond of them. Authorities have a major problem in that shooting is so expensive. Special weapons and ammunition is required, most shooting is done at night, at overtime rates, and a vet and safety officer are required which adds to the cost. No shooting is allowed at Xmas because of the association with Rudolph !

Long story short, please consider reporting sightings, either of actual deer, evidence of their tracks or scats or damage caused. The more people that report deer, the bigger the problem will be made clear and the more chance of funding to do something worthwhile. You may think that the Rusa deer in our park are a big enough problem, but we learnt that Sambar deer are in plague proportions in SA and Victoria and have already made their way over the snowy mountains and are heading towards the Blue Mountains. These deer are twice the size of a Rusa deer and eat proportionately more and cause far more damage to vehicles and people if they collide.

***Stockwellia quadrifida*** D.J.Carr, S.G.M.Carr & B.Hyland  
 Vulnerable Qld  
 Madeleine De Gabriele *The Conversation*

On the western side of Mount Bartle Frere, the tallest mountain in Queensland, grows a tree that shares an ancient link to Australia's most dominant plant group. To get there, you must find a track hidden by rainforest and then walk for around an hour up and down a dirt path, until you reach cathedral-like giant red barked trees. This is *Stockwellia quadrifida*, also known as "Vic Stockwell's puzzle": a close but anciently separated relative of the eucalypts.

This ancient tree is best suited for wetter and warmer environments, a throwback to when this continent was still connected to South America and Antarctica 40-50 million years ago, in the supercontinent Gondwana. But this rare plant is now at risk by an introduced threat, myrtle rust, a plant disease that was accidentally introduced to Australia from South America. Read more

[https://theconversation.com/vic-stockwells-puzzle-is-an-unlikely-survivor-from-a-different-epoch-113370?utm\\_medium=email&utm\\_campaign=Beating%20Around%20the%20Bush%20-%20107779582%20copy%20&utm\\_content=Beating%20Around%20the%20Bush%20-%20107779582%20copy%20+CID\\_98446850d753a40a14bbe1469c04d6cd&utm\\_source=campaign\\_monitor](https://theconversation.com/vic-stockwells-puzzle-is-an-unlikely-survivor-from-a-different-epoch-113370?utm_medium=email&utm_campaign=Beating%20Around%20the%20Bush%20-%20107779582%20copy%20&utm_content=Beating%20Around%20the%20Bush%20-%20107779582%20copy%20+CID_98446850d753a40a14bbe1469c04d6cd&utm_source=campaign_monitor)

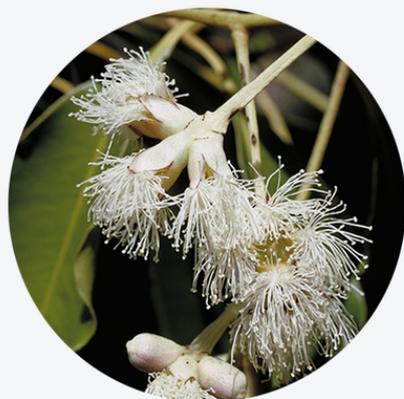
## Vic Stockwell's puzzle

Botanical name: *Stockwellia quadrifida*

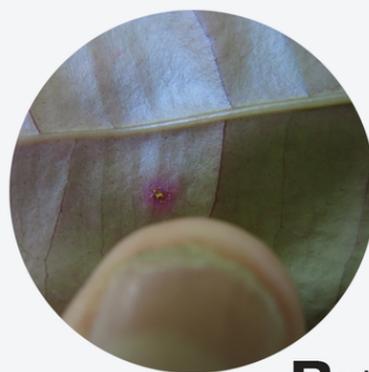
Family: *Myrtaceae*

*Stockwellia* grows as a tree up to 40 metres tall in tropical rainforest at an altitude between 600 and 750m.

It has fruits (gumnuts) that are fused together, in a bunch of three. The flowers are creamy white and closely resemble eucalypt flowers.



*Stockwellia* only grows in a few places, and is now threatened with myrtle rust (pictured right).



## Threatened Species Recovery Hub Eucalypt photo competition

Tue, 14 May 2019

### Spotlight on Eucalypts

Eucalypts are the iconic tree of the Australian continent. They are the foundation of many Australian ecosystems and also underpin important industries. Since European settlement many Eucalypt species have declined dramatically.

The Threatened Species Recovery Hub is undertaking a nation-wide assessment of the conservation status of Australian eucalypt, which includes the genera *Eucalyptus*, *Corymbia* and *Angophora*. The assessment will help conservation managers to understand which species are at risk and will also underpin a national conservation action plan for Australian eucalypts.

The project is being led by Associate Professor Rod Fensham at the University of Queensland.

### Call for photos

To mark this significant milestone in eucalypt conservation the hub is holding a photo competition to celebrate the beauty and diversity of Australia's eucalypts. We are looking for submissions in three categories:

1. Trees
2. Flowers and nuts
3. Features (bark, foliage or anything else of artistic merit)

The best photos will be included in the National Action Plan for Australian Eucalypts, an online photo exhibition and in other materials that promote the findings of the assessment and the national action plan. This could include stories on the hub website and social media, in presentations, factsheets, reports and media coverage related to this conservation research project.

### Prizes

The winner of each category will also receive a prize pack of the following books:

- *Eucalyptus*, the award winning novel by Murray Bail
- *Eucalyptus: An Illustrated Guide to Identification* by Ian Brooker and David Kleinig.



*E. caesia ssp magna* Image: M. Hitchcock

### How to enter

The competition will be open until Monday 22 July 2019. Winners will be notified in late July.

Send your images to Teghan Collingwood ([t.collingwood@uq.edu.au](mailto:t.collingwood@uq.edu.au)). If you have multiple images consider supplying them in dropbox or another file sharing application.

Please supply the photos in high resolution (300 dpi and 1.5mb file size is ideal) and include the following information:

- Photographer name
- Location photo was taken
- What species you think it is, if known

Submissions should be accompanied by supplementary photos of buds and nuts (even if they are scraps from beneath the tree) and a general location so the identity of the species can be confirmed.

Please also confirm that you give consent to the Threatened Species Recovery Hub and the University of Queensland to use your photos in the national action plan and other materials used to promote this eucalypt conservation project.

### More information

For more information email Teghan Collingwood [t.collingwood@uq.edu.au](mailto:t.collingwood@uq.edu.au)

# Save our Flora

## ***Macadamia janseni* Update**

Reproduced from ABC Capricornia, 19 Feb. 2019  
Reprinted in Native Plants Capricornia No. 213

Thirty-seven new trees of the endangered *Macadamia janseni* species have been found in Bulburin National Park, south of Rockhampton. Until September last year, the Macadamia Conservation Trust of Australia thought only 90 of the trees existed in the wild. Retired cane farm manager Keith Sarnadsky found the most recent population of *M. janseni* plants using a satellite imaging service on the internet.

"It was just a matter of looking for specific details like the colour of a new flush of growth and the habits of the known plants we had," he said. "I just looked in tributaries of Granite Creek and worked our way upstream, and I think the first group of trees I found was about roughly five kilometres from the first population."

*M. janseni*, the smallest of the macadamia species native to Australia, produce bitter little nuts on an evergreen plant. The species are thought to be the hardiest of the four native to Australia, as they live the furthest north. The discovery was nostalgic for Mr Sarnadsky, who is a keen naturalist in his spare time. In 1983, he was one of four men who accidentally stumbled across the new species of native macadamia, while on a bushwalk near Agnes Water in Queensland. The men met through their local society for growing Australian plants in Bundaberg.

"We were a group of people that had an actual interest in rainforest plants and natural history in general," Mr Sarnadsky said.

"The day that they were found, we had been up on top of the range most of the day and when we descended down back towards the Bruce Highway. "We pulled up there and we walked up that particular creek because it was a nice little creek. "That's when Ray found them." Mr Sarnadsky said looking for new plants was hard, but he did it out of passion. "It's a good drive from home ... and it's a rough place to take your car into and there's a lot of strenuous walking through vine scrub," he said. "So yes, I've got a personal commitment to it."

## **Species under threat**

The new discovery has come as a great comfort to the Australian Macadamia Conservation Trust. The only living wild population of *M. janseni* are in Bulburin National Park, an hour south of Miriam Vale in Central Queensland. Since the early 2000s, the species have been listed as endangered.

In late 2018, 140 bushfires swept through the area. Denise Bond, the executive officer of the Macadamia Conservation Trust, said the group were extremely concerned about the species during the emergency. "The fires were within 10 kilometres of the *M. janseni* population and that's the kind of catastrophe that we're scared of," she said. "If it had burnt up the valley they could well have burnt the entire population."

The weed known as cat's claw creeper is another threat to the species. As such, efforts to preserve the species have been implemented. Cuttings from 42 plants were taken under licence from the Queensland Government and planted at Gladstone's Tondoon Botanic Gardens. This 'insurance population' are now more than five years old and healthy. Ms Bond said the Conservation Trust had also established two populations in wild habitat which resembled where the species naturally grew.

## **Species hold potential for commercial industry**

Of the four native Australian macadamia species, three are considered vulnerable and one endangered. Ms Bond said that many people find it difficult to comprehend that macadamias were under threat, considering how many were available on supermarket shelves.

"The cultivated ones are all from just a few strict cultivated ones that have been bred for producing lots of nuts," she said. Ms Bond said though native species were very different to commercial varieties, preserving species like *M. janseni* might prove valuable to producers in future breeding.

"One of those characteristics is producing small trees rather than big trees that are harder to manage in orchards," she said. "So, I think that's one way *M. janseni* may prove useful to the industry. "But also, it's just valuable as an individual unique species of the Australian biodiversity."

## New Version of Australian Tropical Rainforest Plants Key



Bubbia semecarpoides Image: [www.anbg.gov.au](http://www.anbg.gov.au)

It is with great pleasure that we announce the online release of Edition 7 of the interactive identification and information system 'Australian Tropical Rainforest Plants' (known as the RFK), available at this link:

[http://www.canbr.gov.au/cpbr/cdkeys/RFK7/key/RFK7/Media/Html/index\\_rfk.htm](http://www.canbr.gov.au/cpbr/cdkeys/RFK7/key/RFK7/Media/Html/index_rfk.htm)

Edition 7 is a major update of what has been a very long term project. The geographical coverage is significantly extended with the addition of Central East Queensland (CEQ) rainforests south from Townsville to Rockhampton. Other enhancements include 200 additional species, nearly 3000 new images, updates to scientific names and current taxonomic concepts, and fully revised distribution coding.

Next we are working on the release of this version as a LUCID App which will enable use on mobile devices. Feedback or questions regarding the key can be sent to [frank.zich@csiro.au](mailto:frank.zich@csiro.au)

Rainforest plant identification courses have been updated to reflect the new key. Queries about

these courses can be directed to [stuart.worboys@jcu.edu.au](mailto:stuart.worboys@jcu.edu.au)

## ANPC News

### [Donate today and help save Australia's unique native plants!](#)

Many of Australia's native plants are threatened and we need your help to promote and improve their conservation. The ANPC brings together plant conservationists from all walks of life to inform and inspire each other in our efforts to save Australia's plants, especially those threatened with extinction. Donate today and support the network of people working in plant conservation. The ANPC is a registered charity with the Australian Charities and Not-for-profits Commission so donations of \$2 or more are tax-deductible!

[Please donate here and help us grow.](#)

### [Native tree seeds sown using drones to restore habitat for birds and bats on cotton farms](#) - ABC Country Hour, 26 April 2019

Drones with modified air rifles are being used to shoot native tree seeds and fertiliser into cropping country. University of New England researcher Rhiannon Smith is leading the seeding project that's aimed at restoring habitat for birds, bats and beneficials on cotton farms on a large scale. The drones can sow 1 hectare, about the size of a football field, in 18 minutes with "one person sitting in the ute playing on the computer". But the specialised drones can't be used by just anyone. ABC reporter Cara Jeffery speaks with Dr Smith about the trial that's revegetating agricultural land. [Listen here.](#)

For more ANPC News go to <http://www.anpc.asn.au>

Save our Flora

My garden is a

# Sanctuary



for  
rare and endangered  
Native Australian Plants

Save our Flora  
[saveourflora@gmail.com](mailto:saveourflora@gmail.com)

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[maria.hitchcock@gmail.com](mailto:maria.hitchcock@gmail.com)

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being made on this offer - it is  
purely a service to members.

## Drought and climate change blamed for the death of centuries-old sandalwood trees

### [ABC North and West SA](#)

By Shannon Corvo 7 Jul 2019

**Rare Australian sandalwood trees that are more than 200 years old are dying in South Australia's outback.**

Key points:

- It has been observed that mature sandalwood trees that have been alive for hundreds of years are dying in South Australia's outback
- Drought and climate change has been blamed for the trees demise
- Citizen scientists are encouraged to help track the impact of drought on trees by uploading them online via a project called [Dead Tree Detectives](#)

Ecologist John Read spotted the dying trees on his property at Secret Rocks, between Whyalla and Kimba, on the state's Eyre Peninsula. The trees had been seen by the explorer Edward John Eyre in 1840.

"We probably walked past a dozen of these big old mature sandalwoods near our house and at least seven of them were dead and the others looked really stressed," Mr Read said.

"We've sort of controlled kangaroo and rabbit numbers to help them regenerate, and they've been doing pretty well over recent years, but in the last three or four months, we've noticed a lot of them are dying."

Sandalwoods are a threatened plant species because they are harvested extensively to make incense and other aromatherapy products. Mr Read said he believed climate change and drought were responsible for the tree deaths.

"I'm pretty sure it's because we've had a very hot and dry period which is a real indicator of climate change," Mr Read said.

"It really struck home when these trees that have been around for many centuries can no longer tolerate the conditions.

"If it was just a single species of tree, you might think it would be a pest or disease that's gone



Sandalwood tree - Image: J. Read

through, but we've noticed quite a significant die-off of wattles and long-lived pine trees."

Mr Read called for national action on climate change and said: "old trees don't lie".

## Threatened Species Recovery Hub News July 2019

### Seed bank saving species in Western Australia

Threatened plant scientist Leonie Monks is on the front line of saving species in Western Australia. Get a glimpse of what happens behind the scenes at the Western Australian Seed Centre and research to support the reintroduction of threatened plant species back into the wild in a new [VIDEO](#).

## Dead Tree Detectives project

In 2018, scientists launched a citizen science project called [Dead Tree Detectives](#), to better understand the damage dry conditions were having on trees. Participants take photographs of dead trees and upload them to the Atlas of Living Australia website. Scientists involved with the program then log details including where the picture was taken and what species of tree had been identified.

Brendan Choat, Associate Professor at the Hawkesbury Institute for the Environment at Western Sydney University, said it was an important project.

["Knowing where and when trees have died will really help us work out what the cause is, identify which tree species are vulnerable and help us to assess future risk,"](#) Professor Choat said.

Professor Choat said he had seen an increase in the number of trees that were dying in the last six months.

"We have hundreds of observations that have been uploaded to the site and they show trees that have died or trees that are very stressed as a result mainly of the drought."

"Initially it was one or two trees dying here or there in an otherwise healthy-looking canopy, but just over the last few months people have been uploading some really shocking photos where whole hillsides are dying," he said.

["Old timers who have lived in these areas for a long time are saying they've never seen anything like this."](#)

"Words like 'unprecedented' are being used and to us that's really surprising and concerning.

"Given all of the images of mass tree dieback from the drought we are seeing posted on the dead tree detective, I don't think there is much doubt that water stress and drought are the primary cause of mortality in this case.

"This drought seems to have pushed a lot of very resilient vegetation over the edge." He said some people were calling these "hot droughts" or "global change-type droughts" but he thought it was "just the new normal".

Professor Choat said now that the badly affected trees had been identified, the plan was to evolve the project in the next three to six months.

"What we're going to do next is try and get out to these sites and evaluate which trees are dying and see if there are any signs of recovery," he said.

"We'll then conduct experiments to try and understand exactly why the trees are dying and what are the physiological mechanisms that are underpinning that mortality.

"Then that will give us further insight into how things might be affected in the future and how we might best approach revegetation."

## Threatened Species Recovery Hub News July 2019

### Norfolk Island's threatened flora

When the British colonised Norfolk Island in 1788, they cleared much of the original vegetation.

Remaining forest is now protected in the national park and reserves, but plant recruitment is poor and invasive non-native plant species would likely overtake the forest without the on-going efforts of park managers. New research is determining the main causes of declines and the most effective actions that managers can take to restore native vegetation.

[READ MORE](#)

### Survey: Which community actions are most beneficial for biodiversity?

Dr Angela Dean at the University of Queensland is leading research on how to increase community engagement in conservation actions. If you are a practitioner or scientist in environmental management or biodiversity conservation, the research team would love your input through a survey. The survey asks you to rank the different types of community behaviours that may benefit biodiversity.

[READ MORE](#)

# Save our Flora

***Acacia purpureopetala*** Critically Endangered

**Acacia Study Group Newsletter  
No. 143, December 2018**

Over a period of six years, two researchers in north Queensland, Simon Glead and Donald Franklin, have examined 24 patches of *A. purpureopetala* (Purple-flowered Wattle), and the result of this research is a paper recently published in the North Queensland Naturalist.

In this paper, the authors provide a morphological description of the species, notes on reproduction, an updated estimate of the total population, number of sub-populations and area occupied, and notes on site characteristics. The article is freely available at [www.nqnat.org](http://www.nqnat.org).

This species is recognized as being very distinct and unique among Australian wattles in having pink to mauve flowers. Interestingly, the authors have observed that this species is somewhat unusual among wattles in addition to its flower colour. In particular, its phyllodes lack the nectaries present in many wattles. It is also one of only about 15% of Australian wattle species whose seeds lack an aril, suggesting poor dispersal ability (arillate seeds in *Acacia* are strongly associated with dispersal by ants and birds). It also has a surprisingly poorly developed root system.

On a positive note, the recent investigations have shown an increase in the total estimated population of this species, a conservative estimate being just over 7,000 adults in patches summing to 20.4 hectares. Its conservative assessment of Critically Endangered under Commonwealth legislation was based on an estimated total population of 500 individuals in 10 "populations" with an area of 8.6 hectares.

Despite this, the authors comment that the species remains extremely rare by any definition.



Image: [North Queensland Plants](#)

## ANPC News June 2019

### **Critically endangered plant *Grevillea caleyi* on video**

As part of the Saving our Species program, NSW OEH have put together this very short video about one of the rarest plants in Sydney. *Grevillea caleyi* only grows on Sydney's northern beaches, restricted to an 8 km square area around Terrey Hills, approximately 20 km north of Sydney. Find out what it needs to survive. [Watch here.](#)

# Save our Flora

## Dalveen Blue Box

Botanical name: *Eucalyptus dalveenica*

Family: *Myrtaceae*

Height: up to 15m

Dalveen Blue Box, is a newly described rare tree species from the Granite Belt in southern Queensland.

It has rough bark and broad leaves that have a sweet, fruity smell.



Since it was recognised as a distinct species the local community has planted seedlings at the local school and on private properties to protect this rare plant.



'Not only did these trees at Dalveen look unlike anything else we'd seen on the trip, they also had a different smell. When we crushed a leaf, the aroma was sweet, mild and fruity, quite unlike the familiar eucalyptus oil'.

'But the DNA told us the trees from Dalveen were genetically distinct, and with no suggestion of shared ancestry'.

'*Eucalyptus dalveenica* is a rare and endangered part of Australia's natural heritage'.

 The Conversation

 Beating  
around  
the bush

**From *The Conversation* May 24, 2019 Tim Collins UNE**

Read full article here

[https://theconversation.com/how-i-discovered-the-dalveen-blue-box-a-rare-eucalypt-species-with-a-sweet-fruity-smell-115561?utm\\_medium=email&utm\\_campaign=Beating%20Around%20the%20Bush%20-%20107779582%20copy%20&utm\\_content=Beating%20Around%20the%20Bush%20-%20107779582%20copy%20+CID\\_ec05fb50f6399cd4a2ffce1556d52d34&utm\\_source=campaign\\_monitor&utm\\_term=Read%20the%20full%20article%20here](https://theconversation.com/how-i-discovered-the-dalveen-blue-box-a-rare-eucalypt-species-with-a-sweet-fruity-smell-115561?utm_medium=email&utm_campaign=Beating%20Around%20the%20Bush%20-%20107779582%20copy%20&utm_content=Beating%20Around%20the%20Bush%20-%20107779582%20copy%20+CID_ec05fb50f6399cd4a2ffce1556d52d34&utm_source=campaign_monitor&utm_term=Read%20the%20full%20article%20here)

# Save our Flora

## 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

16 Hitchcock Lane Armidale NSW 2350

*Correa eburnea*, *C. calycina*, *C. baeuerlenii*,  
*Callistemon pungens*, *Zieria adenodonta*, *Z. prostrata*, *Z. floydii*, *Boronia keysii*

I also sell some endangered species through my online nursery <https://coolnativesnursery.com>

### Arthur Baker

55 Moran ST Gatton Qld 4343

*Gardenia psidiodes*, *Grevillea quadricauda*, *Grevillea glossadenia*, *Eucryphia wilkiei*, *Graptophyllum ilicifolium*

*Xanthostemon formosus*, *Phaius tancarvilleae*,  
*Plectranthus nitidus*, *Zieria prostrata*, *Grevillea mollis*?

*Eremophila nivea*, *Dodonaea rupicola*,  
*Xanthostemon arenaris*, *X verticulatus*/seeds or cuttings

*Kunzea flavescens*, *K graniticola*, *Callistemon pearsonii*

*Callistemon flavovirens*{seeds}, *Melaleuca irbyana*  
*Lilaeopsis brisbanica* {Water plant}, *Hernandia bivalis*  
*Spathoglottis pauliniae* {Tropical ground orchid},

*Rhododendron Lachiae*

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

*Boronia clavata*

### Denise & Graeme Krake

752 Warrigal Range Rd. Brogo NSW 2550

Seed of

*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 who came down from Armidale to look over our block. 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. If people would like to try this I can make it available when the material is ready. 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.

### Bob O'Neill

7 Hillsmeade Drive, Narre Warren South, Vic. 3805

I want to increase our range of *Lechenaultias* and *Correa pulchellas*. Can anyone help us out? Both of these groups of plants are doing well for us at Narre Warren South, Vic. I would be delighted to offer cuttings from our range to interested people. Some plants may be available to people who are able to come to our home address.

### Paul Kennedy (Leader ANPSA Hakea SG) (email [saveourflora@gmail.com](mailto:saveourflora@gmail.com))

I have seed of *Hakea dohertyi* and a large plant of *Hakea ochroptera* from which cutting material could be taken. I also have a plant of *Callistemon megalongensis* which has not flowered yet, but cutting material would be available in autumn. The seed originally came from the Melaleuca Study Group seed bank many years ago.

### Verna Aslin

20-22 Bega St Cobargo NSW 2550

*Asterolasia beckersii* and *Grevillea iaspicula*

*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)*

# Save our 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 60c 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.

## 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 for \$10.55. 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 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

## 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 SE Qld

### Seed Suppliers

Victorian Native Seeds

### Study Groups

Acacia SG  
 Correa SG  
 Epacris SG  
 Garden Design SG  
 Grevillea SG  
 Hakea SG  
 Waratah & Flannel Flower SG

### Landscapers

Brush & Bush Tamworth NSW