



# Save our Flora

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

Contact: E. [saveourflora@gmail.com](mailto:saveourflora@gmail.com) W. [saveourflora.weebly.com](http://saveourflora.weebly.com)

**Project launched on  
14th November 2013**

**Maria Hitchcock OAM**  
 Administrator, Bulletin Editor

### **Membership**

Individuals: 230

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  
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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.

### **The Huon Pine**

*Lagerstrobus franklinii*

(pictured right) is a  
 Tasmanian icon now  
 under threat from  
 climate change.



**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:**

It's September and my area, the Northern Tablelands of NSW has now broken all the records for drought. Day after day goes by with not a sign of rain. The bush has dried up to the extent that even our Gondwana rainforests are drying. The fire season has started very early thanks to some very gusty winds, and fire fronts are now exceeding the norm. Rainforests are burning and communities cannot cope with the extent of these disasters.

Welcome to climate change which is happening far more rapidly than anyone expected. Australia will suffer more than other countries we are told. Still, so many people refuse to admit that this is the future and we need to take action now. What will it take to wake up sleepy Australia, I wonder? Our political masters don't seem concerned. A lump of coal was auctioned at a recent political gathering and fetched \$800. How bizarre is that?

In the meantime experts warn of impending extinctions in our flora and fauna. Does anyone care? I hate to say it but we appear to be a selfish society with great inequality. There are those among us doing more than their fair share in protecting the environment but so much selfless action goes unnoticed by mainstream media and the general population. It is almost 250 years since Captain James Cook visited the east coast of Australia. What a different land it was in those days! In such a relatively short time Australia has been transformed for the worse due to over clearing, abuse of our river systems, degradation of our soils and devastation of natural habitats for animals on the brink.

Can we ever repair the damage and learn to live sustainably? A frightening theory was put forward by British scientist James Lovelock who claimed that our planet can only sustainably support 1 billion people. The world's population currently stands at 7.6 billion. No wonder the planet is in trouble.

Fortunately the children understand - this is their future after all. School strikes and demonstrations are starting to happen around the world in developed countries. We need to talk to young people and offer them hope and support. Get them involved in doing something tangible like growing plants or caring for wildlife. Approach your local school and offer to assist with an endangered species garden. Alternatively ask your council if they have a list of locally endangered plants and suggest they plant these in parks and public gardens. Learn to propagate and give plants away to friends. Together we can make a difference.

**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.**



## What are native grasslands, and why do they matter?

**Mike Letnic**

Professor, Centre for Ecosystem Science, UNSW

*The Conversation* July 31, 2019

Coalition minister Angus Taylor is under scrutiny for possibly intervening in the clearing of grasslands in the southern highlands of New South Wales. Leaving aside the political dimensions, it's worth asking: why do these grasslands matter? The grasslands in much of eastern Australia are the result of forests and woodlands cleared to "improve" the landscape (from a grazier's point of view) to make it suitable for grazing livestock.

The "improvement" typically entails cutting trees, burning the felled timber and uprooting tree stumps, followed by ploughing, fertilising and sowing introduced grasses that are more palatable to livestock than many native grasses. However, largely treeless native grasslands once occurred at high elevations across much of the Monaro tableland, in the area stretching between Canberra and Bombala.

The Monaro grasslands (or in scientific speak, the [natural temperate grassland of the Southern Tablelands](#)) are in relatively dry and cold areas, particularly in upland valleys or frost hollows where cold air descends at night. The combination of dry climate and cold restricts tree growth and instead has encouraged grasses and herbs. Native grasses such as kangaroo grass and poa tussock dominate the grasslands, but there are many other unique plants. A typical undisturbed grassland area will support 10-20 species of native grasses and 40 or more non-grass species.

The grassy plains are also home to unique cold-adapted reptiles such as the grassland earless dragon, little whip snake, pink-tailed worm lizard and striped legless lizards. This combination of plants and animals create a unique ecological community. It is estimated [only 0.5%](#) of the area that would once have been natural temperate grasslands in the Southern Tablelands remains. The rest has been gradually "improved" [since the mid-nineteenth century](#) to make them more productive for livestock grazing. Livestock dramatically change the composition of grasslands, as animals remove palatable plants and compact the soil under their weight. Disturbed soil and the livestock also help to [spread non-native weeds](#).

However, most native grasslands have not just been modified by grazing but completely replaced by man-made pastures. That is, the land has been ploughed, fertilised and the seeds of introduced grasses have been planted. These changes to the landscape mean much of the landscape is dominated by introduced plants and is now unsuitable for many of the native plants and animals that once lived and grew there.



The pink-tailed worm lizard is one of the rare species living in the native grasslands of the Southern Tablelands.

Matt Clancy/Wikimedia Commons, CC BY-SA

Because the Natural Temperate Grassland of the Southern Tablelands is now so rare it is [classified as critically endangered and federally protected](#). Furthermore, many of the [distinct plants and animals](#) that still live in these grasslands are classified as vulnerable or endangered. Some of the best remaining examples of the Monaro grasslands can be found in old cemeteries and in areas set aside as public livestock grazing areas. These areas of public land have often been spared from pasture improvement or only lightly grazed, and thus now support relatively intact native grassland ecosystems.

While to the untrained eye the Monaro grasslands may seem unremarkable and difficult to distinguish from grazing pastures, they are deeply important. They show us what Australia once looked at, and act as a haven for native biodiversity.

Indeed, what remains of the natural grasslands is now so disturbed by agriculture there is a real threat this distinctive ecological community and many of the species it contains may disappear altogether, if they are not protected from excessive grazing, fertilisers and the plough.

## ANPC News - July 2019

### [Seeds for the Future: a one day Forum - Sydney, Tuesday 8 October 2019](#)

Where will the seeds for the future come from? Given development pressures and declining space for connectivity, there is an increasing need for restorationists, plant producers and landscape architects to collaborate on ensuring natives of the correct provenance and genetics are conserved as well as planted within urban spaces. This forum brings together people from the bush regeneration, revegetation, nursery and landscape architecture and planning sectors to set the scene for future collaborations and introduces the innovative project 'Healthy Seeds' that is poised to offer practical solutions for all. This event is being co-hosted by the ANPC and the [Australian Association for Bush Regenerators \(AABR\)](#) at the Teachers Federation Conference Centre, Reservoir Street, Sydney and is assisted by the NSW Government through its Environmental Trust. Tickets will go on sale in August. [Read more.](#)

### [Notification of public consultation on the Coastal floodplain eucalypt forest of eastern Australia ecological community](#)

The national Threatened Species Scientific Committee invites your comments and submissions on a proposed listing for a nationally threatened ecological community under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The 'Coastal floodplain eucalypt forest of eastern Australia' ecological community was originally nominated as the 'River-flat eucalypt forest on coastal floodplains of New South Wales'. Its name has been revised to reflect its full national extent. This forest occurs on coastal floodplains throughout the temperate and subtropical regions of eastern Australia, from Gladstone in Queensland to east of Sale in Victoria. The draft scientific assessment, included within a draft Conservation Advice, recommends that the ecological community may be eligible for listing as Endangered, based on evidence that it has declined in extent by 75-80%; it has a very restricted geographic distribution, based on small patch sizes, coupled with many demonstrable threats throughout the range; and the extent and integrity of the remaining forests are further impacted by weed invasion, changes to hydrology and coastal development. The closing date for comment was **Wednesday 21 August 2019**.

### [First ever Victorian sighting of rare plant - DELWP, 26 June 2019](#)

For the first time ever the rare *Pomaderris viridis* plant, a slender shrub that grows up to five metres high, has been found in Victoria. The plant, which looks a little similar to Dogwood or Native Hazel, is more often found in NSW - but even there it is rare. Despite extensive searching only one specimen has been found so far. It was discovered during a Forest Protection Survey conducted in East Gippsland in August by the Department of Environment, Land, Water and Planning. These surveys are carried out to protect the habitat of threatened plant and animal species from timber harvesting. Harvesting that was scheduled for the forest will now not take place to better protect the area where the plant was found from further disturbance. [Read more.](#)

### [Botanists rediscover extinct ferns on remote Queensland mountaintops - The Royal Botanic Garden Sydney, 18 July 2019](#)

Two tiny ferns presumed to be extinct for over half a century have been rediscovered by botanists on two remote mountaintops in north Queensland's Daintree rainforest. The enigmatic filmy fern *Hymenophyllum whitei* was only known by a single collection in 1931 by Cyril White from Thornton Peak, which rises above the Daintree Rainforest to a height of 1374 metres. Botanist from the Royal Botanic Garden Sydney Dr Matt Renner was a part of an expedition with the Australian Tropical Herbarium tasked with trying to find the ferns. "*Hymenophyllum whitei* is extremely hard to spot as its fronds are only three centimetres long and when dry they actively hide by curling up and retreating into surrounding mosses and liverworts" said Dr Renner. [Read more.](#)

### [Bushcare's Big Day Out - Australia-wide, 15 September 2019](#)

Celebrating a day to restore and maintain Australia's remaining bushland. Held annually in spring, Bushcare's Big Day Out (BBDO) is a national day of community participation to restore remnant bushland. BBDO is a day designed to give every one of us the opportunity to find out more about our bushland. It's a fun day where anyone can get involved and learn alongside experts. Activities can include weed removal, tree planting, mulching or even follow up maintenance on sites where rehabilitation has already begun. BBDO events are also a fantastic opportunity for sharing knowledge and expertise through activities like bird watching, plant identification workshops and species monitoring.

## ANPC News - August 2019



*Caladenia audasii*

Image: <https://www.anpc.asn.au>

### **Saving the threatened Audas Spider-orchid (*Caladenia audasii*) from extinction**

The ANPC is working with [Royal Botanic Gardens Victoria](#), [Friends of Grampians Gariwerd - FOGGS](#) and [Australasian Native Orchid Society - Victorian Group](#) to save the threatened *Caladenia audasii* from extinction, thanks to funding from the [Department of Environment, Land, Water and Planning](#). *Caladenia audasii* has fewer than 8 plants left in the wild. So far, an exclusion fence has been constructed at one site to protect newly discovered plants from grazing, seed has been collected and sown for propagation, and plant surveys and pollinator baiting have been undertaken. In spring 2019 there will be more pollinator baiting and surveys for any new plants, before re-introducing 50 seedlings in winter 2020. [Read more.](#)

### **The Extremely Rare, Julian's Hibbertia - Envirotube - Ep #1, 6 May 2019**

Find out all about the critically endangered *Hibbertia spanantha* from Ecologist, ANPC Committee member and PhD candidate Chantelle Doyle in this Episode 1 on Kuringgai Council's Envirotube video channel.

[Watch on YouTube here.](#)

## 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.



*Hibbertia spanantha*

Image: Toelken & A.F.Rob



## Pomaderris viridis

<https://www.forestsandreserves.vic.gov.au/media-releases/first-ever-victorian-sighting-of-rare-plant>



Image: [Forests and Reserves](#)

For the first time ever the rare *Pomaderris viridis* plant, a slender shrub that grows up to five metres high, has been found in Victoria. The plant, which looks a little similar to Dogwood or Native Hazel, is more often found in NSW - but even there it is rare. Despite extensive searching only one specimen has been found so far.

It was discovered during a Forest Protection Survey conducted in East Gippsland in August by the Department of Environment, Land, Water and Planning. These surveys are carried out to protect the habitat of threatened plant and animal species from timber harvesting. Harvesting that was scheduled for the forest will now not take place to better protect the area where the plant was found from further disturbance.

The discovery, approximately 100 kms from the nearest NSW sighting, is a significant one. It was originally thought that the plant was likely a hybrid of two other *Pomaderris* (*Pomaderris aspera* and *Pomaderris cinerea*) because those species were found at other known locations of the plant, which looks similar to them. But as neither of those species were present at the Victorian discovery site, it seems very unlikely that *Pomaderris viridis* is a hybrid.

Since the plant was identified, a 250-metre special management area has been established around the *Pomaderris viridis* and a fence has been erected to protect it from damage by deer. With the special management area now in place to protect the plant, any future activities planned in adjacent areas, including harvesting, will require additional targeted surveys for the plant. If more of the rare plants are found as part of that survey, action will be taken to protect them further from impacts including timber harvesting.

At this stage, only one of the rare shrubs has been discovered in East Gippsland. Scientists believe there are probably more of these rare plants at other sites, but they simply haven't been found as yet.

\*\*\*\*\*

### **Clouds Creek Old Growth Forest under threat.**

Watch the video from the Nature Conservation Council.

<https://www.nature.org.au/our-campaigns/ending-deforestation/save-clouds-creek-forest/>

## Plants are going extinct up to 350 times faster than the historical norm

Jaco Le Roux, Florencia Yanelli, Heidi Hirsch, Jose Maria Iriondo Alegria, Marcel Rejmanek, Maria Loreto Castillo  
The Conversation August 23, 2019

Earth is seeing an unprecedented loss of species, which some ecologists are calling a [sixth mass extinction](#). In May, a [United Nations report](#) warned that 1 million species are threatened by extinction. More recently, [571 plant species](#) were declared extinct. But extinctions have occurred for as long as life has existed on Earth. The important question is, has the rate of extinction increased? Our research, [published today in Current Biology](#), found some plants have been going extinct up to 350 times faster than the historical average – with devastating consequences for unique species.

### Measuring the rate of extinction

“How many species are going extinct” is not an easy question to answer. To start, accurate data on contemporary extinctions are lacking from most parts of the world. And species are not evenly distributed – for example, Madagascar is home to [around 12,000 plant species](#), of which 80% are endemic (found nowhere else). England, meanwhile, is home to [only 1,859 species](#), of which 75 (just 4%) are endemic. Areas like Madagascar, which have exceptional rates of biodiversity at severe risk from human destruction, are called “[hotspots](#)”. Based purely on numbers, biodiversity hotspots are expected to lose more species to extinction than coldspots such as England. But that doesn’t mean coldspots aren’t worth conserving – they tend to contain completely unique plants.

We are part of an international team that recently examined [291 modern plant extinctions](#) between biodiversity hot and coldspots. We looked at the underlying causes of extinction, when they happened, and how unique the species were. Armed with this information, we asked how extinctions differ between biodiversity hot and coldspots.

Unsurprisingly, we found hotspots to lose more species, faster, than coldspots. Agriculture and urbanisation were important drivers of plant extinctions in both hot and coldspots, confirming the general belief that habitat destruction is the primary cause of most extinctions. Overall, herbaceous perennials such as grasses are particularly vulnerable to extinction. However, coldspots stand

to lose more uniqueness than hotspots. For example, seven coldspot extinctions led to the disappearance of seven genera, and in one instance, even a whole plant family. So clearly, coldspots also represent important reservoirs of unique biodiversity that need conservation. We also show that recent extinction rates, at their peak, were 350 times higher than historical background extinction rates. Scientists have [previously speculated](#) that modern plant extinctions will surpass background rates by several thousand times over the next 80 years.

### So why are our estimates of plant extinction so low?

First, a lack of comprehensive data restricts inferences that can be made about modern extinctions. Second, plants are unique in – some of them live for an extraordinarily long time, and many can persist in low densities due to unique adaptations, such as being able to reproduce in the absence of partners.

Let’s consider a hypothetical situation where we only have five living individuals of Grandidier’s baobab (*Adansonia grandidieri*) left in the wild. These iconic trees of Madagascar are one of only nine living species of their genus and can live for hundreds of years. Therefore, a few individual trees may be able to “hang in there” (a situation commonly referred to as “extinction debt”) but will inevitably become extinct in the future. Finally, declaring a plant extinct is challenging, simply because they’re often very difficult to spot, and we can’t be sure we’ve found the last living individuals. Indeed, a recent report found 431 plant species previously thought to be extinct have been [rediscovered](#). So, real plant extinction rates and future extinctions are likely to far exceed current estimates.

There is no doubt that biodiversity loss, together with climate change, are some of the [biggest challenges faced by humanity](#). Along with human-driven habitat destruction, the effects of climate change are expected to be particularly severe on plant biodiversity. Current [estimates](#) of plant extinctions are, without a doubt, gross underestimates. However, the signs are crystal clear. If we were to condense the Earth’s 4.5-billion-year-old history into one calendar year, then life evolved somewhere in June, dinosaurs appeared somewhere around Christmas, and the Anthropocene starts within the last millisecond of New Year’s Eve.

## Australia cleared 7.7m hectares of threatened species habitat since introduction of environment act

Lisa Cox *The Guardian Australia*

9 September 2019

More than 7.7m hectares of habitat have been cleared since the introduction of Australia's national environment act, according to new research that finds 93% of land cleared was not referred to the federal government for assessment.

The study, led by researchers from the University of Queensland and three environment organisations – the Australian Conservation Foundation, WWF Australia and the Wilderness Society – warns that Australia's high extinction rate will increase “without a fundamental change” in how environment laws are enforced.

The scientists used publicly available spatial data to quantify the amount of clearing of potential habitat for 1,638 listed threatened species and ecological communities – which are groups of species that form a single habitat – between 2000 and 2017. They used the federal government referral record to calculate how much of the clearing had been referred to the government for assessment.

The study examined two types of habitat – forests and woodlands – and excluded clearing that had occurred before the Environment Protection and Biodiversity Conservation (EPBC) Act came into force in 2000 and any clearing that was due to natural causes such as fire. They calculated that the land cleared included 7.7m hectares of potential habitat for terrestrial threatened species, 64,000 hectares of habitat for terrestrial migratory species, and 330,000 hectares for threatened ecological communities.

The researchers found that clearing had affected potential habitat for 84% (or 1,390) of the species studied and that the overwhelming majority of that clearing (93%) had not been referred to the federal government for scrutiny under the EPBC Act.

“This noncompliance means that potential habitat for terrestrial threatened species, terrestrial migratory species and threatened ecological communities have been lost without assessment,

regulation or enforcement under the EPBC Act,” they wrote.

Some species suffered more habitat loss than others. According to the study, the Mount Cooper striped skink lost 25% of its potential habitat, the Keighery's macarthuria, a plant native to Western Australia, lost 23% and the southern black-throated finch lost 10%.

The researchers found that 1.1m hectares of potential habitat for koalas had been cleared.

“These are the species threatened with extinction,” said Michelle Ward, the study's lead author from the University of Queensland. “If we don't stop their habitat loss, they're going to go extinct.”

Queensland was the location of the highest levels of clearing – the state had nine of the 10 species that lost the most potential habitat. A statutory review of the EPBC Act is due to begin this year. Ward said the researchers would be submitting comments based on their research.

Their paper says Australia's national environment laws have been “ineffective” at preventing habitat loss and calls for amendments that require critical habitat, where possible, to be mapped and monitored for threatened species and ecological communities, and for protection of that habitat to be enforced.

“We think that the act should be amended so that critical habitat is mapped, available to stakeholders and fully protected from further destruction,” Ward said.

James Trezise, a policy analyst at the Australian Conservation Foundation and a co-author on the study, said the research highlighted how national laws had “systematically failed to protect threatened species and their habitats”.

“To potentially have more than 93% of threatened species habitat loss unregulated is completely unacceptable and demonstrates a massive compliance failure under the EPBC Act,” he said. “These findings should be a wake-up call to the federal government as it gears up to review the EPBC Act and as it enters negotiations for a new global framework for protecting nature through the UN.”



# Save our Flora

New post-2020 targets for nature are due to be established next year under the Convention on Biological Diversity.

Another co-author on the study, James Watson, of the University of Queensland and the Wildlife Conservation Society, said a review of the EPBC Act was essential.

“Australia is about to get a boot up the arse with the global post 2020 biodiversity agenda because the core part of that is stopping species extinction and Australia is doing dismally,” he said. “It’s globally embarrassing. The quicker we get a review and get it working, the better.”

## 2020

### International Year of Plant Health

In December 2018, the United Nations General Assembly declared 2020 as the International Year of Plant Health (IYPH). The year is a once in a lifetime opportunity to raise global awareness on how protecting plant health can help end hunger, reduce poverty, protect the environment, and boost economic development. [Read more](#)

<https://www.ippc.int/en/iyp/h/>

### Rare Orchids stolen

ANPC News -

ABC Mid West and Wheatbelt Facebook

[https://www.facebook.com/abcmidwestandwheatbelt/photos/a.](https://www.facebook.com/abcmidwestandwheatbelt/photos/a.321716205984/10157203702725985/?type=3&theater)

[321716205984/10157203702725985/?type=3&theater](https://www.facebook.com/abcmidwestandwheatbelt/photos/a.321716205984/10157203702725985/?type=3&theater)

The Shire of Goomalling says they're devastated by the theft of rare orchids from Konnongorring Reserve. The flowers - including the rare Blood Spider orchid pictured - had only just begun to bloom when they were dug up and taken.

These orchids can only grow in extremely specific conditions. Even if they're planted somewhere else, they will still die. It is illegal to pick wildflowers without a permit. The Shire says they've reported the incident to the Department of Biodiversity, Conservation and Attractions.



Blood Spider Orchid (*Caladenia filifera*)

## Huon pine trees live for 3,000 years but climate change could wipe them out in the next 50

[Felicity Ogilvie](#) ABC News 5 Sep 2019

The rare Huon pine *Lagarostrobos franklinii*, which has existed on Earth for millions of years, could go extinct due to the effects of climate change, experts warn. Huon pines are the oldest living trees in Australia and the second oldest in the world — only the North American bristle cone lives longer. Huon pines can live for 3,000 years, meaning some were seedlings before the Greeks invented democracy and well before Julius Caesar was born.

Professor Tim Brodribb from the University of Tasmania is one of those concerned about what carbon dioxide emissions could mean for the giant tree.

"If the emissions continue to rise as they are at the moment, then this species [Huon pine] and a lot of species in Tasmania will be extinct in 100 years for sure," he said. "The timescale [could be] 100 years or 50 years, depends on how our carbon dynamics work."

Professor Brodribb recently visited a Huon pine forest on Tasmania's West Coast with University of Melbourne scientist Kathy Allen. Dr Allen has been using an instrument called a dendrometer to take data every 15 minutes to see how the trees grow. She is also taking samples of the tree cores to study how the climate has changed. She has observed that in the past 1,000 years, there were only a few hot summers — but that has changed since the 1950s.

"The change you're seeing since the 1950s record is unprecedented," she said. Professor Brodribb also said the West Coast — where Huon pines grow — is facing a triple threat of increasing temperature, decreasing rainfall and more bushfires. The old trees are rarely cut down but the timber is rot-proof, enabling sawmillers to salvage logs from the forest floor and river beds.

Sawmiller Bern Bradshaw, 90, has been working with Huon pines most of his life. He thinks the scientists have got it wrong and that the trees will survive climate change. Mr Bradshaw also looked at the tree rings of Huon pine logs. "I

think it's just coped with very warm weather and its also coped with very cold weather," he said.



*Lagarostrobos franklinii* Huon Pine

Images: <https://en.wikipedia.org>

But his colleague Dianne Coon is terrified about what could happen to the tourism industry and the timber industry in a region that is reliant on tourists taking cruises up the Gordon River to see giant Huon pines. "If we are to lose something that takes so long to grow and embodies so much history it would be a shame on us all," she said.



# Save our Flora

## ANPC News - September 2019

### [New EPBC ACT Listings - Illawarra-Shoalhaven Subtropical Rainforest & Robertson Rainforest Threatened Ecological Communities - DoEE, 5 September 2019](#)

The Minister for the Environment, the Hon. Sussan Ley MP, has amended the list of threatened ecological communities under the EPBC Act to include two new critically endangered TECs. The two new listings are:

The [Robertson Rainforest in the Sydney Basin Bioregion](#). This rainforest is only found near Robertson in the Southern Highlands of NSW. It is critically endangered. Up to 85% has been lost and what remains is fragmented and under threat from clearing, invasive species, fire, under-scrubbing and weeds.

The [Illawarra-Shoalhaven Subtropical Rainforest of the Sydney Basin Bioregion](#). This rainforest is found below the escarpment of the NSW south coast. It is critically endangered. Up to 80% has already been lost and what remains is damaged and under further threat from clearing, fire, feral animals and weeds. Protection of this rainforest protects habitat for several threatened species including the Illawarra Socketwood plant and the Spotted-tailed Quoll.

***Daphnandra johnsonii*** (Socketwood)  
Wikipedia

Usually occurring at less than 150 metres above sea level, on volcanic soils in sub tropical rainforest. Occasionally up to 350 metres above sea level. Often by creeks, or dry rocky scree slopes. Also in disturbed forest and rainforest margins. Distributed from [Berry, New South Wales](#) in the south to [Scarborough, New South Wales](#) in the northern [Illawarra](#).

A member of the ancient [Gondwana](#) family [Atherospermataceae](#), the Illawarra socketwood is [endangered](#) by extinction. Formerly considered the southernmost population of *Daphnandra micrantha*, the Australian socketwood. Recently it has been recognised as a separate species.



*Daphnandra johnsonii* Image: Flickr

A small to medium-sized tree. Growing to around 20 metres tall with a stem diameter of 30 cm and having a broad and shady crown. The trunk is beige in colour, cylindrical with little buttressing. Sometimes seen with [coppice](#) leaves at the base. The bark is fairly smooth with some raised pustules of a darker colour. Leaves ovate or elliptic in shape, 6 to 12 cm long, 1.5 cm to 6 cm wide with a sharply angled tip.

Leaves are opposite on the stem, prominently toothed, 7 to 9 teeth on each side of the leaf. The bottom third of the leaf is without leaf serrations. The point of the leaf base to the first serration is almost a straight line. The bottom of the leaf is glossy pale green, the top side is a dull dark green. Leaf venation is more evident under the leaf. Lateral veins not clear on the top surface. Mid rib raised on both sides of the leaf. Six or seven pairs of lateral veins. Leaf stems 2 to 7 mm long, and smooth. Old leaves go pale and turn yellow on the





# Save our Flora

## Gold Coast hinterland fire prompts question — can rainforests burn?

ABC News [Shelley Lloyd](#) and staff 10 Sep 2019

<https://www.abc.net.au/news/2019-09-09/gold-coast-hinterland-bushfire-why-rainforests-burn/11491364>

Acting Queensland Premier Jackie Trad says the Gold Coast hinterland fire that swept through the area over the weekend included areas of rainforest — a highly unusual event, but one that appears to be occurring more frequently in recent times.

University of Queensland Associate Professor Rod Fensham said it was "a bit premature to know to what extent the rainforest has burnt" but [similar fires occurred in Central Queensland just last year](#).

"You have to wonder about the effects of global climate change on our climate when it is less than a year [since] we had those really exceptional fires in Central Queensland," he said.

"You might have been able to excuse them as a one-off event last year, but here we are less than a year later and we have another set of fires in Queensland. We have these two very divergent biomes — the rainforest which is diverse in tree species and quite fire resistant, and the eucalyptus forest which is actually quite flammable and does burn. And generally, fires burn through the eucalyptus forest from time to time, and sharpen the boundaries between the two systems."

Griffith University PhD student Patrick Norman is studying protected land management and was a former park ranger at the [Lamington National Park where the fires occurred](#). "It doesn't happen often and I'm really hoping it's mainly sticking to the eucalypt forests around the rainforests.

"Some observations from the VIIRS (Visual Infrared Imaging Radiometer Suite) satellite that detects temperature changes in forests, suggests it looks like there are actually a few areas of rainforest burnt, which is very concerning. "To my knowledge this hasn't happened before in the Gold Coast hinterland. It takes 100 to 150 years for sub-tropical rainforest to regrow ... especially those large emergent trees that stick out over the top of the

canopy, so waiting for those trees to get big enough, is a long time.

"The area that looks like it's been burnt, there are a few threatened bird species ... the black-breasted button quail, it's a nice known habitat in that area, so that's a major concern." Bushfire and Natural Hazards CRC chief executive Richard Thornton said the dry conditions meant no areas were safe.

"Going back over the past number of years, where we've had ongoing drought conditions throughout most of south-eastern Queensland, and indeed, all the way down the east coast, our outlook was saying that these areas in particular, these areas would be susceptible to above average fire threat this year," Mr Thornton said.

"Given the conditions that we're seeing here, with ongoing drought and above average temperatures, fire can start almost anywhere because the fuel is just so dry. We are always surprised when rainforest starts to burn, it indicates how dry and how dangerous the conditions are. Rainforests normally don't burn but they will burn when the conditions are right, but it's very unusual for rainforest to burn.

"Certainly last year in central and northern Queensland we saw rainforest burning as part of those fires and more recently we've seen fires in extreme fire intolerant landscapes in Tasmania, in what were usually areas that don't burn too well ... the challenge is how we deal with this because it's not a normal occurrence. If it's a eucalypt-dominated forest — even if it's a rainforest understory, you will get fires occasionally."

Without rain, Mr Thornton said further fires in rainforest areas were possible.

"Considering the current dry conditions, we shouldn't be surprised to see fires in rainforest again ... that's probably the case until we get decent rainfall," he said. "The only thing that will stop these fires is good quality rainfall. And the only thing that will lower the fire danger risk this coming summer is a sustained period of rain, one or two days just won't do it. It will need to be substantial rainfall and there's none of that in the outlook that we can see."

# 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