

## 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: 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 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 with this group. You may **unsubscribe** at any time.



Diuris fragrantissima Image: <u>https://www.retiredaussies.com/</u>

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



#### **Maria writes:**

As I write this fires are raging across most of the NSW ranges. The drought which has moved into uncharted territory has taken an enormous toll on farmland and regional communities. My own town of Armidale in northern NSW is in shock. For decades the townspeople were told that there was enough water in Malpas Dam, built in the 1960s to sustain a population of 60,000 through years of drought. Not so. We have a population of 23,000 and are currently on level 5 restrictions with the Council putting down deep bores to try to augment the water supply. So far they haven't been very successful.

Sydney is enveloped in hazardous levels of smoke pollution day after day. That smoke is causing fire alarms to go off everywhere. The whole of the north coast of NSW has experienced air pollution worse than Beijing for weeks ... and this is just the start of the fire season. Over 1000 homes have already been lost across Qld and NSW and the Federal Govt concerns itself with a religious discrimination bill. How bizarre is that?

Like everyone else we have a fire plan, boxes ready to evacuate in a hurry and sprinklers set up to water the roof and boundaries. I shudder to think what is happening out there in the burning forests. While firefighters are engaged in saving lives and property the wildlife and flora are undergoing the worst possible trauma. News of hundreds of koala deaths has resulted in an amazing number of donations, but little thought is given to the insects, birds and small mammals caught up in the inferno. Recovery will be a very slow process and we may never see some of our rarer plants in the wild again until re-locations are carried out.

In the meantime there has been a blending of the Departments of Agriculture and Environment - a move which I personally regard as sinister. I find it appalling that Ministers can preside over destructive decisions then walk away and never be held accountable. Governments will use disasters such as these fires and the drought to get around legal restrictions. (See p. 2) We have to call them out. I realise this is not possible for people working for government funded bodies. But there are a large number of us who do not have to remain silent. Use your Facebook pages, write letters, tell others, join activists. Think of the young woman whose fish kill photos went viral and resulted in action. There is such a thing as 'the power of one'. 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

In October I attended the Botanic Gardens Congress in Wellington NZ and gave a presentation on saving our threatened flora. It was lovely to meet up with so many likeminded people - all doing their bit to conserve the flora. It was also wonderful to be in a country that is green!

I'd like to wish you all a happy Christmas and a safe and wet New Year!

## Drought-busting laws to fast-track approvals for critical projects amid \$1b cash boost

By Kylar Loussikian and Tom Rabe

SMH October 13, 2019

Environmental and planning rules could be circumvented to fast-track dams, bores and water pipelines under emergency drought-busting laws being considered by the Berejiklian government, as it joins with federal counterparts to inject \$1 billion into getting the critical projects built.

Under the proposal, Water Minister Melinda Pavey would be able to direct Planning Department bureaucrats to speed up the construction of water infrastructure by up to two years by slashing requirements to conduct biodiversity surveys and leaving planning decisions to Water NSW.

Details of the proposal, to be discussed in cabinet on Monday, can be revealed as the federal and state governments prepare to commit more than \$1 billion to a dam construction program, including major upgrades to the Wyangala Dam near Cowra in central-west NSW, the Dungowan Dam west of Port Macquarie, and a new dam on the Mole River in the state's north. There is not yet a business case for the Mole River dam, which could cost up to \$400 million.

Government sources who spoke to the *Herald* said the cabinet proposal, which is being introduced by Deputy Premier John Barilaro and Ms Pavey, follows a Water NSW briefing last month that warned several regional centres would be left without water if new infrastructure had to go through the current planning process. However, others in cabinet are reluctant about watering down planning and environmental rules. Dubbo, Tamworth, Cowra, Forbes, Nyngan and a number of other towns would have their water supplies officially declared "critical" and be subject to the new fast-tracked rules, sources familiar with the plan said.

WaterNSW, the government-run bulk water supplier, warned in "worst case scenario" projections released last month that Dubbo and Nyngan could lose their drinking water by November.Residents would be forced to rely on bore water or bottled and trucked-in water.

The government was forced to provide emergency funding for a \$12.9 million pipeline from Malpas Dam to Guyra, near Armidale, after the town ran out of drinking water earlier this year. Mr Barilaro and Agriculture Minister Adam Marshall opened the 20-kilometre pipeline last week. The government has also budgeted \$39 million to build a pipeline from Chaffey Dam to prevent Tamworth running out of water, a project that is still in the planning process.

Sources familiar with WaterNSW briefings said the new emergency powers set to be given to Ms Pavey and Planning Department secretary Jim Betts would reduce the length of biodiversity surveys – an audit of threatened species and native vegetation – cutting approval time by a year alone. Another proposal being considered would be to measure cost-effectiveness rather than conduct a full Cost Benefit Analysis on new water projects, sparing them from being deemed unworthwhile. This change would also require Treasury approval, sources said.

Early work on some projects could also begin before a final business case was approved. Planning Minister Rob Stokes last week said he would declare new dam projects "critical state-significant infrastructure" in a bid to prevent them from being subject to lengthy public consultation hearings. Mr Barilaro and Ms Pavey declined to comment, as did a spokesman for Prime Minister Scott Morrison. But Nature Conservation Council spokesman James Tremain said the Coalition "was warned years ago of the looming water crisis in the bush but failed to act".

"Well, now the chickens have come home to roost and Nationals ministers are running around shouting about new dams and throwing out proper planning processes," Mr Tremain said. Premier Gladys Berejiklian and Mr Barilaro were expected to join Mr Morrison and Deputy Prime Minister Michael McCormack in announcing the funding plan for dams on Sunday.

## Backyard conservation the new frontier for biodiversity

Megan Backhouse The Age May 31, 2019

Clare McPhee runs her own business looking after "very tidy, very clean, hedged-to-pieces" gardens in Melbourne's bayside area. Paula Rivera is a wildlife carer who tends possums that have burnt their paws on hot roofs, birds trapped by fruit-tree netting and other native animals that have run into mishap. But in their downtime, McPhee and Rivera join forces to tackle the threat of species extinction, one garden at a time. The two met a year ago when they both volunteered to become "garden guides" for a Gardens for Wildlife Victoria program being rolled out by the City of Frankston.

They have now formed quite a duo. In the Frankston area, where more than 80 per cent of bushland has been cleared for urban development, they're part of a team of volunteers who pair up and visit residents in their home gardens. They spend about an hour perusing the place and then give suggestions on how it could be made to run wilder. More layers, more indigenous plants and at least some water sources for animals, is the main thrust of their advice.

The finer details differ between gardens and garden owners but the aim is always the same: how to make even diminutive urban gardens the sort of places where native birds, insects and other animals feel at home. Both McPhee and Rivera were among those who took part in a Gardens for Wildlife Victoria workshop held in Narre Warren last week. It presented a very local way of dealing with global problems and was held, coincidentally, on this year's United Nations-proclaimed International Day for Biological Diversity.

The central message of the workshop was that "tinkering in your garden can make a difference". It is especially pertinent in light of the recent United Nations report warning that 1 million plant and animal species are on the verge of extinction because of human activities. This followed hot on the heels of a Victorian State of the Environment report announcing that Victoria's biodiversity was deteriorating in many places with native species under the increasing threat of extinction. Laura Mumaw, a former CEO of Zoos Victoria and one of the founders (along with Nadine Gaskell and Irene Kelly) of Gardens for Wildlife Victoria, says seeing the "excitement on the faces of zoo visitors when they were around exotic animals" made her start thinking about how people could be encouraged to protect wildlife in their own backyards. As a doctoral student at RMIT, Mumaw began researching a Gardens for Wildlife program established in 2006 by the Knox City Council, the Knox Environment Society and the wider community. It set out to improve biodiversity by tackling lots of small spaces, thereby creating larger wildlife corridors.

That program became the model for Gardens for Wildlife Victoria, which was established in 2016 to provide a framework by which community members and councils across the state could together improve biodiversity on both private and public land. While the network has received funding from the State Department of Environment, Land, Water and Planning, Mumaw says it taps into the need for a community grassroots movement that – with the help of volunteer guides like McPhee and Rivera in the City of Frankston – encourages home gardeners to take conservation matters into their own hands.

"Conservation in urban backyards is the bit no-one thinks about, it isn't valued. People associate conservation with something that takes place in big wild spaces and yet the majority of our population lives in cities," she says. "If you say landscapes in cities are too damaged to make a difference then you give people *carte blanche* to do whatever they want."

The day after the Narre Warren workshop Mumaw gave a talk to the residents of the City of Moonee Valley and next week she will speak in Maribyrnong. These lectures and workshops are part-inspirational and part-practical, being as much about encouraging people to see the value in things like fallen logs and old trees as about providing a forum in which like-minded people can compare notes. Mumaw says the program, currently adopted by 10 councils and about to be launched by another two, allows people to see they are part of a movement. "They start to feel that their garden has a purpose and is contributing to the future."

## **Gardens for Wildlife Victoria**

is caring for nature through community partnerships. https://gardensforwildlifevictoria.com/

Every garden is a place where wild plants and animals shelter, visit, or make their homes. Our community's landscape is made up of many parcels of public and private land. Together they provide a diversity of habitats for different plants and animals. Our council can protect remnant vegetation, improve native habitat, and create havens for wildlife on public land. Householders, businesses, schools and other landowners can do the same on private land. By wildlife gardening we can work with our community to make our neighbourhood a place that supports the native plants and animals of our area.

In addition to fostering our environment we can: build skills, confidence and ownership in caring for the land strengthen our connections with community, nature and place, and

improve our health and wellbeing.

Our members represent environmental community groups, shires, councils, and volunteers from across Victoria. We are learning about, developing, or managing community wildlife gardening programs that are co-designed and led by public agency community group partnerships.

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## Statewide plant conservation in full swing

https://www.rbg.vic.gov.au/news/statewide-plantconservation-in-full-swing

On Sunday 19 May, the inaugural *Care for the Rare* program was launched, with a special planting of the Bogong Daisy-bush (*Olearia frostii*) by Mark Krause (Parks Victoria), Tim Entwisle (RBGV) and Chris Russell (RBGV). As Victoria's oldest botanic gardens, Royal Botanic Gardens Victoria donated the Bogong Daisy-bush to the state's most recent addition, the Dandenong Ranges Botanic Gardens. The iconic Bogong Daisy-bush, which naturally occurs in Victoria's alpine regions, is highly susceptible to impact by climate change. Royal Botanic Gardens Victoria is leading the *Care for the Rare* program, which has been created to safeguard rare and threatened Victorian 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

## **Spencer Shaw**

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

## **Helen Howard**

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

species against extinction in the wild. This program highlights the important role that all botanic gardens play in plant conservation and empowers local communities to protect plants indigenous to their region.

#### Read more

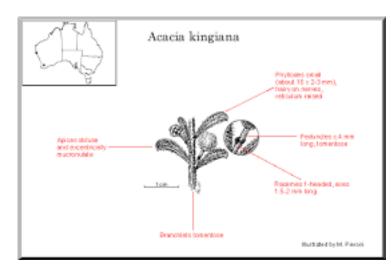
# Scientists re-counted Australia's extinct species, and the result is devastating

Woinarski, Murphy, Nimmo, Braby, Legge, Garnett *The Conversation* December 2, 2019

It's well established that unsustainable human activity is <u>damaging the health of the planet</u>. The way we use Earth threatens our future and that of many animals and plants. <u>Species extinction</u> is an inevitable end point.

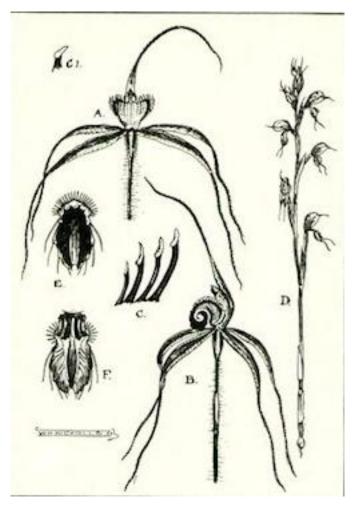
It's important that the loss of Australian nature be quantified accurately. To date, putting an exact figure on the number of extinct species has been challenging. But in the most comprehensive assessment of its kind, our <u>research</u> has confirmed that 100 endemic Australian species living in 1788 are now validly listed as <u>extinct</u>. Alarmingly, this tally confirms that the number of extinct Australian species is much higher than previously thought.

- 38 plants, such as the magnificent spider-orchid
- I seaweed species
- 34 mammals including the <u>thylacine</u> and pigfooted bandicoot
- 10 invertebrates including a funnel-web spider, beetles and snails
- 9 birds, such as the paradise parrot
- 4 frogs, including two species of the bizarre <u>gastric-brooding frog</u> which used its stomach as a womb
- 3 reptiles including the Christmas Island forest skink
- 1 fish, the Pedder galaxias. <u>Read more</u>





Diuris bracteata Assumed Extinct Image: ResearchGate



A. Flower from front B. Flower from side Caladenia magnifica Syn. Caladenia patersonii var. magnifica Image: VictorianNaturaLIIFiel\_0208.jpg



## Vale

## Ruth Crosson - Gladsone who died on Sunday 1st December.

Ruth alerted us to the plight of the endangered *Attalaya collina* several years ago and advocated successfully for a small plantation of this species to be planted at Tondoon BG. She was a regular contributor to our newsletters. Here she is with Brent Braddick of Tondoon BG. A tree planting ceremony at Tondoon was held on Tuesday 10th December. *Image: Paula Wallace* 

## **Rosemary Race wrotes:**

I have moved from Rosedale Gippsland to Portland Southwest Victoria as I am involved with many more environmental volunteer groups here.

Especially SWAT, Southwest Woody Weeds Action Team Inc. who are predominantly slowly eradicating Sweet Pittosporum from country roads, farmers land and the Cobboboonee Forest. I am also a member of Portland Coastal Cliffs Inc. as they are concentrating their efforts at Nuns Beach Portland with Victorian Gorse.

Both groups are also involved with Portland North Primary School and Portland Secondary School to whom I will be forwarding your Newsletter to in the hope they will join Membership.

I have planted my native garden at my unit as honey eaters are now busy discovering what I have, great sun trap in front of my unit which previously was 4 standard roses. My courtyard which never had even a weed in it for 25 years is flourishing with herbs, fruit and veggies, natives too and yes weeds which I'm pleased about, birds have located it as the bees are returning.

Hopefully it will be self sufficient as I don't water my plants!

## My Life with Wally'

Liz Benson APS Quarterly Gathering, Warriewood *Caleyi* Dec. 2019

Liz sketched the place of the Wollemi pine *Wollemia nobilis*, in Gondwanan history so as to be declared a 'living fossil'. As context, she took us back into the history to RF Scott's finding in 1912 of *Glossopteris* fossils, a conifer in Antarctica, preserved in rocks dating from 200-300 million years ago. The fossil leaf has parallel veins. These fossils are also found in South America, Africa, Madagascar, India, Australia and New Zealand.

*Glossopteris* is also found in Mongolia. *Glossopteris* fossils can be seen in The Age of Fishes Museum, Canowindra. During the Jurassic period Australia was covered in conifers, but this changed as a result of continental drift. As Australia separated and drifted northwards a wet and warm climate favouring rainforests gave way to a drier climate. Conditions then allowed flowering plants to dominate. Angiosperms replaced gymnosperms and eventually evolved into the full range of flowering plant species known today. Liz noted that the reticulated leaves of angiosperms (ie. veins with a net-like structure) have an adaptive advantage over leaves with parallel veins.

David Noble's chance discovery of the four-storey high *Wollemia nobilis* after the 1994 bushfires in an isolated gorge in the Wollemi National Park still excites naturalists world-wide. The Wollemi pine is related to both extinct and living species in the family Araucariaceae. The ancient Kauri pine *Agathis jurassica* is the Wollemi pine's closest relative while *Podozamites jurassica* is also close. Living examples of close relatives are the kauri pine, *Agathis robusta*, and the bunya pine *Araucaria bidwillii*, a food for indigenous Australians. It is possible that the Wollemi pine may one day be found widespread in the fossil record.

An international media frenzy broke out when the discovery of the Wollemi pine was announced. Unfortunately this impacted on David Noble as a private person. It took international effort and time to identify *Wollemia nobilis* and its existence contributed to the successful bid to list the Greater Blue Mountains as a World Heritage area. The Wollemi pine is now grown around the world. The National Parks and Wildlife Service (NSW) dealt with any threat of extinction of the two stands of the Wollemi pine growing in the two gullies by propagating it at the Australian Botanic Garden Mt Annan and by commercial distribution. Initial attempts at tissue culture or helicopter seed collection have been abandoned, as tip cuttings from the top will take. If the cuttings originate from the side, the shoots grow along the ground. The plant does require water, in keeping with its natural environment at the base of a sandstone cliff.

As a bushwalker and traveller, Liz Benson finds interest and joy in seeing the Wollemi pine around the world, in places as diverse as the Inala Jurassic garden on Bruny Island, the Bunya Mountains Queensland, Hobart Botanic Gardens, in a cool glasshouse in Singapore, outside the National Museum of Natural History Paris, in London's Kew Gardens and in Germany.



*Wollemia nobilis* growing at Mt Tomah BG Image: <u>https://www.flickr.com/</u>



## Ralph Cartwright Sydney writes

On my first visit to Tassie, back in the late 80's, and before I got interested in Australian Natives, we visited the west coast and saw and read about Huon Pine, *Lagarostrobos* franklinii.

I found a tube stock specimen for sale at a roadside cafe and bought one. No idea if it was a cutting or seed grown.

At the time I was setting up a pond in my Sydney suburban backyard and planted it next to the water in ordinary soil that I had banked up around the edges from the pond excavation. I figured that it could get access to water as the pond got filled and the excess was wicked up by the soil growing to the edges.

Over the years, the pond has lost any clear water and is now basically a plant covered frog bog, which I actually like. I have 3 species of native frogs and enjoy the calls, especially when it rains. However, the water level is now generally much lower.

I had read that they were very slow growing, but mine seemed to grow quite quickly, especially in the early years and as you can see, it has an attractive weeping habit and pretty foliage. I read it grows at 1mm trunk girth per annum, but mine is 10cm in around 30 years or so. (Top photo)

I have noticed that I am getting some small dead branches and it doesn't seem to be putting on as much new growth each year as it used to. Maybe I'll have to water it more often in future.

#### Maria writes:

I have been growing this species for about 5 years in a terracotta tub placed near the nursery where it gets watered every day. It has taken on more of a horizontal habit rather than an upright stem and has survived severe frosts so could be planted out in the open in a frosty area depending on soil moisture. It was a tiny tube when I bought it. Growth is probably slower than in Sydney but it has grown faster than expected and has a substantial trunk. (Bottom photo)





#### **ANPC News November 2019**

## **<u>Review of the Environment</u>** <u>**Protection and Biodiversity**</u> <u>**Conservation Act 1999 - Discussion**</u> <u>**paper released**</u>

The statutory review of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) commenced on 29 October 2019. Professor Graeme Samuel AC has been appointed as the independent reviewer. An Expert Panel will support and provide advice to Professor Samuel on specific issues. Over the next 12 months, the review will look at how the EPBC Act has been operating, and any changes needed for Australia to support ecologically sustainable development into the future. All Australians are invited to participate in the review.

Submissions on the discussion paper are due 14 February 2020. <u>Read the discussion paper</u> <u>here</u>.

## ACT Woodland Strategy released

The ACT's woodlands are exceptional in terms of their size, connectivity, diversity and habitat for threatened species. The 2019 ACT Native Woodland Conservation Strategy will guide the protection, restoration and management of our precious lowland and subalpine woodlands for the next 10 years. Its associated action plans for five threatened species (including three plants Canberra Spider Orchid (*Caladenia actensis*), Small Purple Pea (*Swainsona recta*) and Tarengo Leek Orchid (*Prasophyllum petilum*) will guide their preservation. <u>Download here</u>.

## <u>Contemporary and traditional fire</u> <u>management approaches in the</u> <u>desert</u> - Threatened Species Recovery <u>Hub</u>

Landscape-scale fire management in arid areas is challenging because of the vast areas involved. Interest in using techniques like aerial incendiary for fire management in deserts is growing, but it is unclear whether this approach will deliver the same cultural practice, fire and biodiversity outcomes, as traditional, very fine-scale burning carried out from the ground. This project aims to establish a monitoring program to measure the effectiveness of different approaches to fire management over a large Indigenous Protected Area in north-western Western Australia. The project aims to support the transmission of traditional ecological knowledge and will include a range of indicators of conservation and cultural significance. Read more.

## Land clearing near Murray River and national park raises ecologist fears for native habitat - ABC Mildura-Swan Hill, 25 October 2019

Ecologists say land clearing near a national park, where the NSW Government is trying to reestablish the first native bilby population in 100 years, shows the state's approach to land management does not do enough to protect native habitat. Mallee scrub has been cleared on a property at Trentham Cliffs, across the Murray River from Mildura. Land clearing in the state's far west has raised concerns for ecologists, who said vast tracts of native vegetation are being removed during a period of severe drought. <u>Read more</u>.



Australian Network for Plant Conservation News November 2019 https://www.anpc.asn.au/

## This vineyard is embracing the Aussie bush by letting native grasses thrive -ABC News, 31 October 2019

This vineyard is embracing the Aussie bush by letting native grasses thrive which attract native wasps to help with pest control and reducing the need for the use of chemicals. <u>Watch here</u>.

## Immediate end to old-growth logging, as thousands of jobs set to go - SMH, 7 November 2019

Premier Daniel Andrews says thousands of workers in the timber industry face a "tough transition" as the state government moved on Thursday to end logging of Victoria's native forests. The cutting down of old-growth forest will end immediately, the Premier said in Gippsland on Thursday, and native timber harvesting will be "phased down" before ending completely in 2030. Existing timber supply agreements with dozens of timber mills will be extended to 2024 and after that, wood processors will have to bid for a reduced supply of timber, with a \$120 million support package for businesses which leave the industry and workers who lose their jobs. <u>Read</u> <u>more</u>.

## Cracking the Nut - ABC Gardening Australia, 15 November 2019

The land around Brisbane, like much of coastal Australia, has been heavily cleared and developed

over the past few hundred years - and one of the casualties is the trees that produce our best-know food export, the macadamia nut. Now grown all over the world, the nuts are native to Queensland and northern NSW, but more than 80% of bush macadamia trees have been lost and they are now threatened in the wild. Jerry goes hunting with scientist Liz Gould, from Healthy Land and Water, to see what specimens they can find. Some still exist in remnant bushland around suburban Brisbane but others are limited to botanic gardens. Macadamias are a member of the Proteaceae family, so are related to grevilleas and banksias. The nuts were traded up and down the east coast by the first nations peoples of Australia. Read and watch here.

## Govt gives boost to native veg - Stock journal, 18 November 2019

The state government has announced a multimillion-dollar commitment to expand funding for holders of native vegetation Heritage Agreements, which has been welcomed by farming and environment groups. Improving native vegetation on private land protects and enhances biodiversity, improves landscape sustainability through enhanced water and soil condition as well as offering additional tourism potential, said Environment Minister David Speirs. "To boost the benefits of improved native vegetation across SA, the state government has committed \$3 million of funding over the next two financial years," he said. <u>Read more</u>.



## How Victoria's 'Snow in the Paddocks' melted away - and is being saved

Mick Connolly SMH November 10, 2019

There is a dizzyingly beautiful orchid that grows naturally at only one place on the planet, in a secret patch not far from the centre of Melbourne. It is a delicious white bloom brushed with purple and yellow highlights. Thirty-seven wild plants survive at an industrial site too hazardous to be trampled at random, simultaneously rescued and marooned. Once they were common, splashed horizon to horizon across the grasslands that would become the western suburbs of Melbourne. The orchid's tuber was a favourite Indigenous food, the equivalent of a root vegetable.

Indigenous people farmed it with fire. A cool burn at the right time would remove competing vegetation, open the ground to sunlight and spread a layer of nutritious ash. The first Europeans to arrive called the flowers "Snow in the Paddocks". Lovers could gather bouquets by the armful, intoxicated by romance and a superlative perfume. Scent inspired the scientific name, *Diuris fragrantissima*, and a suburb lent itself to the common name, Sunshine diuris.

It was so prolific it seemed absurd that it could ever melt away. Until it did. Orchids disappeared when grasslands became desirable real estate, grazed, compacted, ploughed, planted, subdivided, scraped, asphalted and built upon. This final refuge was fenced by orchid society members in the 1950s and has been tended by a succession of government bodies and volunteers. It was not forgotten, but sometimes neglected. By the year 2004 it was overgrown, the Sunshine diuris hadn't been seen for a couple of years and was feared extinct.

"We started by hand-weeding. For two years we did nothing but hand-weed. In 2006, six flower spikes appeared and we were ecstatic," said Karen Lester, a senior biodiversity officer with the Department of Environment, Land, Water and Planning (DELWP). "Someone came and picked them all. That was when we decided to keep the location secret." Lester co-ordinates a rescue team that includes the Australasian Native Orchid Society, Royal Botanic Gardens, DELWP staff and volunteers. Orchids are her babies. She beams, almost dances on the spot, moving from one foot to the other as she enthusiastically discusses the project before leading visitors onto the site.

"Step where I step - no accidents, please," she pleads. "Notice how spongy the ground feels?" Volcanic soils west of Melbourne usually dry into concrete-like slabs, but here the mass of roots and tubers from indigenous lilies and orchids keeps the ground alive. "An Aboriginal woman could dig in an hour enough food to feed her family for a day," Lester explains. Sunshine diuris is no more than 20 centimetres tall and all examples here are posted with individual yellow flags. Each is mapped and measured, their vital statistics recorded with care.

"Mornings I wake up thinking 'Have I done enough? Is there more I could do?'," Lester says. So rare is Sunshine diuris that no one can say they've seen a pollinator at work. The protagonist is almost certainly a native sweat bee tiny enough to crawl into a flower and then step out heavy with pollen. I've been invited to take photos in the hope of making a positive identification. For five hours I sit at the edge of the field, camera ready. Nothing. But the secret garden is abuzz with flying insects. Butterflies and hoverflies and sweat bees are fussing over other local natives. This plant community sustains insects year-round and supports orchids in their short period of flowering. Any loss of habitat would diminish the viability of all.

*Diuris fragrantissima* is a prima donna. It grows only in a symbiotic relationship with specific soil fungi, one or a couple of species among hundreds. Threads of mycorrhizal fungi, finer than any roots, penetrate the tuber and radiate out to draw in moisture and nutrients from surrounding soil. In return, fungi receive sugars from the plant. Seed will germinate only if it falls in contact with its favoured fungus. Orchids are propagated at the Royal Botanic Gardens at Cranbourne using a sliver of fungus, seed, an agar dish and laboratory magic. One hundred and forty lab-grown plants have been reintroduced to this original colony and 43 are flowering now. <u>Read more.</u>.



## Seed and Cuttings Exchange

## Please send all requests directly to the person making the offer or the group email 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 <u>https://coolnativesnursery.com</u>

#### 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 verticulutus/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)

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

**Russell** (email <u>saveourflora@gmail.com</u>) *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 lan 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)

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)

## 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

 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.

 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** 

Landscapers Brush & Bush Tamworth NSW

## **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