

Save our Flora

AN ONLINE INDEPENDENT NATIONAL PROJECT

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Project launched on 14th November 2013

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Bulletin Editor

Membership Individuals: 160
Groups: 21
International 3

Membership is free.

Please encourage others to join.

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.

Grevillea ilicifolia subsp. ilicifolia



Image: www.environment.nsw.gov.au

Does anyone have this species growing in their garden?

You can now access all our previous E-Bulletins online

Go to <http://coolnatives.com.au/>

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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:

2016 is an election year with all the fun and games that entails. Environmentalists, activists, professionals and amateurs will be busy lobbying their local members for money and approvals for local projects. This is the best time to twist those arms so don't delay - get busy.

My husband and I spent a week in January checking out the Correas on Flinders Island in Bass Strait. I'd done a big survey of the North eastern Tasmanian coastline so was expecting similar results. One plant I was especially interested in is *Correa reflexa var nummulariifolia*. Paul Wilson in his last revision of the genus split off the Bass Strait island forms from the mainland ones. Unfortunately the name 'nummulariifolia' better describes the Victorian coastal forms but these are now included under *C. reflexa var reflexa*. The nursery trade continues to sell these forms under the 'nummulariifolia' name which adds to the confusion. I wanted to see the island form for myself and check if it is already in cultivation.

It wasn't hard to find. We'd hired a camper van and spent the first night at Trousers Point which has the most wonderful beach. *C. reflexa var nummulariifolia* was growing above the beach sheltered by rocks. We found it in many other places on the island and was able to photograph one flower. Summer is out of the flowering season. I don't believe it is in cultivation. *Correa alba* is the most common *Correa* on the island but we did find what could be a new species of *Correa*. I am working on that now and will be able to report back later. It was an interesting holiday and I can thoroughly recommend plant hunting as a focus for any trip. Perhaps you could liaise with an Herbarium and see if they need some assistance.

The bushfire season is not over yet. The good rains in January on the east coast have seen a lot of lush growth which is now drying off. All it takes is some strong westerly winds and very hot temperatures or a severe thunderstorm with lightning strikes to set our bush ablaze. The Australian bush has adapted to fire but somehow these are becoming more frequent and more intense. Many of us have homes set in the bush or surrounded by bush gardens. Each summer sees whole communities devastated by fire. What to do? I really think that the design of homes in Australia needs to radically change. Experts are working on this but it's slow progress. Along with fire safe homes we also need to work hard on energy efficiency.

Critically endangered

Arthrochilus huntianus subsp. nothofagicola Tas

Corunastylis littoralis NSW

Eucalyptus recurva NSW

Euphrasia arguta NSW

Euphrasia fragosa Tas

Euphrasia gibbsiae subsp. psilantherea Tas

Gastrolobium diabolophyllum WA

Gastrolobium luteifolium WA

Grevillea brachystylis subsp. grandis WA

Guichenotia seorsiflora WA

Gyrostemon reticulatus WA

Haloragis platycarpa WA

Hemigenia ramosissima WA

Hybanthus cymulosus WA

Keraudrenia exastia WA

The ridiculous cost of housing in Sydney is an example of how crazy our society can get. One wonders where it will end up. Here in regional Australia housing is much more affordable but there is a lack of employment. Councils are being forced to merge leading to the loss of stable employment for people who have lived there all their lives. Where are they to go? They are now locked out of the metropolitan market. I live for the day when public policy looks at the whole picture and not just where a dollar or two can be saved.

People power has been very effective in saving rural communities from the threat of coal seam gas mining. We need to be able to harness that energy and direct it towards saving other elements of our environment. All too often the flora is overlooked by the general population. It is enthusiasts like yourself who are making the difference.

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WHERE SONG BEGAN – A REVIEW OF TIM LOW’S LATEST BOOK

Bob Ross

Tim Low’s seventh book, *Where Song Began: Australia’s Birds and How They Changed the World*, is the first nature book to win the Australian Book Industry Awards prize for best General Non Fiction.

I have read it and I think it is a fabulous book. However it is difficult to read, not because Tim is not a good writer, but because there is so much information in it that I could only read half a dozen pages before I had to stop and think about all the new stuff I had learned.

The back cover of this book says “Australia is known as the land of marsupials, but its birds are even more extraordinary.” The same theme is expanded by Tim in the Introduction, and the relevance to the plants of Australia are profound. For example, on page 3, Tim Low points out that “Honeyeaters and parrots benefit from the vast supplies of sugar and starch available from eucalypts and other bird-adapted plants.” He concludes this paragraph with the comment “Marsupials, by having done poorly in some ecological roles, have let birds such as parrots prosper in their place.”

When I finished this wonderful book I found that it had changed my perspective on the future of Australian plants and their ability to adapt to the challenge of global warming and climate change. I grew up in the United States and while I have lived in Australia for the past fifty years, I still thought of plants more or less as an American – until I read Tim’s book.

Now I don’t have any excuses – I realise that native Australian plants have evolved hand-in-hand (so to speak) with the birds and insects and animals of this wonderful continent.

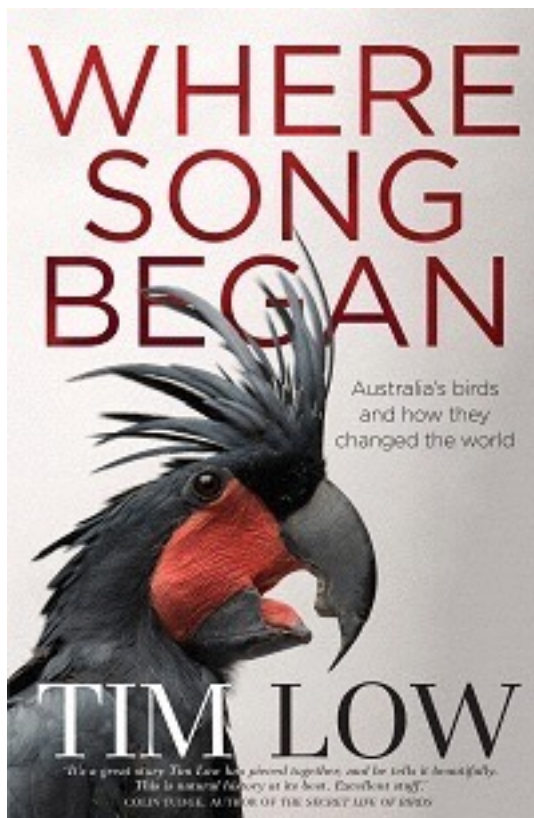
For example, towards the end of the book (on pages 312 and 313) Tim discusses the role of Australian towns and cities as refuges for native birds during times of drought. In America my mother used to put out feeding trays for small birds in the winter to help them survive the period in the northern USA when plants were dormant and snow covered the ground. But things are much different here, and Tim points out that “Australia has highly skewed urban bird faunas. Instead of thornbills, fantails and whistlers there are large, loud songbirds and parrots, creating adverse surrounds for drought refugees.”

In our own garden we haven’t planted many hybrid grevilleas and bottlebushes (mainly because the ‘soil’ where we live is pure Aeolian silica sand and won’t grow the showy natives with big flowers). As a result we don’t have any noisy miners living on our block, although during the nesting season in the spring we do have several families of wattlebirds in residence, raising young wattlebirds in nests in the *Melaleuca nesophila* trees that we planted years ago. But the small birds – the blue wrens and silvereyes – arrive later in the summer when the wattlebirds have finished raising their young. Tim discusses this on page 312: “Bred for long flowering seasons, hybrid grevilleas and bottlebrushes often end up sustaining noisy miners and other feisty honeyeaters, exacerbating the poverty of urban birds.”

Throughout *Where Song Began* the relationship in Australia between birds and plants is discussed. On page 205 Tim writes “The main mutualisms between birds and plants – pollination and seed dispersal – are unusually strong in Australia...” He points out that this relationship hasn’t always benefited native plants or the diversity of the ecosystem and he uses the example of the relationship that has developed between native Topknot Pigeons and the introduced camphor laurel tree.

The ripening berries of the camphor laurel tree (a serious introduced weed tree) have become a favourite food of Topknot Pigeons “but insect feeders gain nothing because the camphor in the leaves is a potent insecticide, the ingredient in mothballs. Except where there is ripe fruit, the groves are lifeless.”

While this book is mainly about Australian birds, the symbiotic relationship between the birds and plants reappears time and again throughout the over 300 pages. And the facts are thick and almost overwhelming. I can't recommend it highly enough – it is a great read and also a wonderful source of information.



Within four weeks of its release *Where Song Began* had reached number 4 position on the Australian Independent Bookseller Bestseller List. It appeared on bestseller lists in the Sydney Morning Herald and Courier Mail.

Bookworld listed it as one of the 10 best books of 2014, giving it third place, with the comment that "Low distills a massive and complex amount of

research into something quite readable for the everyday layperson."

Booktopia featured it as one of the 5 best non-fiction books of that year, "The sleeper hit of 2014".

Readings bookstore had it as one of the 10 best non-fiction books of 2014.

It appeared in the Courier Mail as one of the 30 best books of 2014, with a description of it as "A completely engaging book."

In the Sydney Morning Herald, and Australian Book Review, poet Robert Adamson nominated it as his favourite book of 2014, describing it as "stunning".

Ref: <http://www.timlow.com/books/bird-book>



Genetic studies have shown that all the world's songbirds, parrots and many pigeons have Australian ancestors. DNA taken from a dodo has shown that this extinct bird, which was a giant flightless pigeon, was among the birds that can be traced back to Australia. The world's oldest pigeon fossils have been found in Australia. They are 20 million years older than Europe's oldest pigeon fossils

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Australian Network for Plant Conservation News

<http://www.anpc.asn.au>

Invitation to comment

Public consultation is currently underway on the assessment of the [Warkworth Sands Woodland](#) of the Sydney Basin Bioregion ecological community. Comment is invited on the assessment to determine whether this ecological community is threatened under the Federal Environment Protection and Biodiversity Conservation Act 1999. The ecological community is a low woodland, dominated by *Angophora floribunda* (rough-barked apple) and *Banksia integrifolia* subsp. *integrifolia* (coast banksia) with other trees, shrubs and groundcover species typical of sandy soils. The ecological community has a highly restricted distribution in the Hunter Valley of New South Wales, with the core distribution in the Warkworth district, south of Singleton. The comment period closes at 12 pm on Wednesday 17 February 2016.

EPBC Act listed plant species and ecological communities

Public consultation - species:

Public comment period closes 15 January 2016

- *Calochilus cupreus* (copper beard-orchid)
- *Carex tasmanica* (curly sedge)
- *Eucalyptus macarthurii* (Camden woollybutt)
- *Paralucia pyrodiscus lucida* (Eltham copper)
- *Veronica parnkalliana* (Port Lincoln speedwell)
- *Thelymitra hygrophila* (blue star sun-orchid)

Species listings

Since the beginning of October, the Minister has agreed to amend the list of threatened species under the EPBC Act for the following species:

Listed as critically endangered:

Callistemon megalongensis

(Megalong Valley bottlebrush)

Listed as endangered:

Atriplex sp. Yeelirrie Station

(L. Trotter & A. Douglas LCH 25025)

Listed as vulnerable:

Antechinus bellus (fawn antechinus)

Eucalyptus aggregata (black gum)

Ecological communities listings

The Minister has approved the inclusion of the Eucalypt Woodlands of the Western Australian Wheatbelt to the **critically endangered** category.

Conservation Advice

Littoral Rainforest and Coastal Vine Thickets of Eastern Australia had an amended advice approved on 12 November 2015

Threat abatement plans

The Minister for the Environment has released the draft Varied Threat Abatement Plan for competition and land degradation by rabbits for public comment. The comment period closes on 16 March 2016. Rabbits are one of the most serious and costly vertebrate pests in Australia. They are recognised as a potential threat to over 300 threatened species (including 260 plant species) under the EPBC Act.

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ANPC Recently published research relating to threatened species (vegetation)

- Barrett 'Fifty new species of vascular plants from Western Australia - celebrating fifty years of the Western Australian Botanic Garden at Kings Park'

Nuytsia <https://florabase.dpaw.wa.gov.au/nuytsia/>

-Coates et al. 'Significant genetic diversity loss following pathogen driven population extinction in the rare endemic *Banksia brownii* (Proteaceae)' Biological Conservation

<http://www.sciencedirect.com/science/article/pii/S0006320715301385>

-McDougall et al. 'Recovery of treeless subalpine vegetation in Kosciuszko National Park after the landscape-scale fire of 2003'

Australian Journal of Botany

<http://www.publish.csiro.au/paper/BT14319.htm>

-Reiter et al. 'Causes of infertility in the endangered Australian endemic plant *Borya mirabilis* (Boryaceae)' Australian Journal of Botany

<http://www.publish.csiro.au/paper/BT14229.htm>

-Thiele et al. 'Paraphyly, modern systematics and the transfer of *Dryandra* into *Banksia*

(Proteaceae): a response to George'

Australian Systematic Botany

<http://www.publish.csiro.au/paper/SB15015.htm>

-Tierney et al. 'Standard survey designs drive bias in the mapping of upland swamp communities

Austral Ecology

<http://onlinelibrary.wiley.com/doi/10.1111/aec.12253/abstract>

The following article was copied from Caley (APS Northern Beaches Oct 2015)

MANY HANDS HELP GROW CRITICALLY ENDANGERED PLANT

www.environment.nsw.gov.au Tania Duratovic

The future of one of NSW's critically endangered plants, holly-leaf grevillea (*Grevillea ilicifolia* subsp. *ilicifolia*) was recently boosted following the introduction of 59 plants into Round Hill Nature Reserve, northwest of Lake Cargelligo in central western NSW. The NSW population of the holly-leaf grevillea was at a critically low level, with only three individuals known to exist, all of which occur at Round Hill Nature Reserve.

The propagation project was a collaborative effort.

It began in 2013 following the collection of stem cuttings and seed, involving the Royal Botanic Gardens (Sydney) and TAFE (Blue Mountains Institute) and produced 59 new plants. The plants, grown under strict nursery conditions, took 18 months before they were ready to be planted out. Volunteers from the Murrumbidgee Field Naturalists group arrived with shovels in hand and worked hard to plant, water and cage all 59 plants.

According to local NPWS ranger Allan McLean, they decided to cage the plants on advice from the Royal Botanic Gardens to help minimise any chance of disturbance by wildlife that might occur to the young plants. Once the plants are established and up to size, however, the cages will be removed and this will allow uninhibited access to flowers for natural bird pollinators.

Wet weather gave the plants a helping hand to get established but regular monitoring and watering over the first few weeks, and especially as the weather was starting to warm up, was required. Without this collective effort, it looked likely this plant would disappear from NSW so it's amazing that in just one day the numbers of holly-leaf grevillea known to exist have been boosted from three to 62. Ranger Allan McLean says that there is still a long way to go yet and that ideally they'd like to collect more propagating material and look at establishing the grevillea into other areas where it once occurred. Mr McLean said, "We are hoping for a good rate of seed set in future years and ideally the natural emergence of new seedlings."

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Friends of Royal Seminar Protecting Our Natural Heritage

Alternative Management & Funding Strategies

Friends of Royal invites you to an afternoon of expert speakers from:

- Australian Wildlife Conservancy
- Bush Heritage Australia
- Murray Darling Wetlands Working Group
- The Nature Conservancy
- Birdlife Australia
- Wildlife Land Trust
- Save our Flora

12:45 Sunday 20 March
Venue: Stapleton Avenue Community Centre, Sutherland
Cost: \$20, includes afternoon tea

Full details at <http://friendsofroyal.org.au>

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New WA Biodiversity Laws Include Increased Fines For Threatening Endangered Species

abc.net.au November 25, 2015 [Andrew O'Connor](#)

New biodiversity legislation has been introduced to Western Australia's Parliament with the promise of protecting endangered animals and safeguarding threatened habitats. Environment Minister Albert Jacob introduced the bill into State Parliament, saying its passage into law next year would signal a new start for conservation in WA.

"This bill ushers in a new era for conservation by introducing a contemporary legislative basis for conservation actions, the listing and recovery of threatened species, [and] recognition of threatened ecological communities," he said.

Mr Jacob told Parliament the bill would help protect the biodiversity of WA's South West, one of the world's 35 recognised biodiversity hotspots, allowing the listing of both endangered species and critical habitats. Anyone seriously threatening endangered species would face maximum fines of up to \$500,000, compared to the current penalty of just \$10,000. There are also tough provisions for anyone destroying critical habitats.

"The bill also includes the capacity for courts to require repair of significant biodiversity conservation damage as an alternative to, or in addition to, fines," he said. "This will provide a further disincentive to people considering damage to the most important habitat sites."

Sandalwood fines increased

The new legislation increases the maximum penalty for illegal sandalwood harvesting from \$200 to \$200,000 for individuals and \$1m for corporations. Mr Jacob said it also sought to streamline decision-making by government, including the process for listing or de-listing endangered species. He said the bill had been the result of an extensive consultation process which started in 1992 with the release of a discussion

Wilderness Society state director Jenita Enevoldsen said her organisation had not been consulted on the proposed new laws, but welcomed many of its provisions.

"The crown is now bound by this act. So there's not now one rule for the people and one rule for the Government, it is now all encompassing," she said. Ms Enevoldsen said greater protection of native habitats was an important feature of the bill, but she wants more done to protect native animals, not just those under immediate threat.

"Currently, there are only threatened species being looked after. We're concerned that if the current habitat isn't protected, more species will be on that list," she said. Ms Enevoldsen said the society would also closely scrutinise the provisions covering land clearing, which she said was widespread and very difficult to quantify.

"There's a lot of clearing going on and we'd really like to see that reined in," she said.

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Fred Rogers Seminar

by Kevin Sparrow

Recently members of the organising committee went on a day trip around the Hamilton District to check out potential visit sites for the next Fred Rogers seminar which will be held next year. The 11th Fred Rogers Seminar, a 2 day conference on Native Terrestrial and Epiphytic Orchids will be held in Hamilton over the weekend of 8th and 9th October 2016 and plans are well under way with a range of speakers organised with expertise in native orchids – their shapes, reproduction techniques, distribution, techniques for growing them and threats they face. There will be opportunities for people to learn how to grow epiphytic orchids (on logs or rocks) and to hone their plant photography skills.

The Seminar is being jointly hosted by the Hamilton SGAP and Warrnambool & District APS Groups and will be held at the Kantor Music and Performing Arts Centre at the Hamilton and Alexandra College in Hamilton and it is expected to be a very popular event.

On Sunday 9th, it is envisaged there will be the opportunity for some extended interest group activities in Hamilton as well as a variety of field trips to particular sites of interest in the Hamilton, Dunkeld, Grampians and other areas rich in wildflowers including orchids.

Early October is prime time orchid season in the south west and even with the seasonally dry conditions, there are still lots of orchids to be found as committee members discovered. All up, eleven different orchids were found in a matter of a few hours such as those pictured, *Calochilus robertsonii* - Purplish Beard-orchid, *Thelymitra ixioides* - Dotted Sun-orchid and *Diuris sulphurea* - Leopard Orchid.

It will be an extraordinary opportunity to listen to world class speakers and to meet many interesting enthusiasts. So if you want to hear more about this, you should link to

www.warrnambool.org/sgap

<https://www.facebook.com/warrnamboolsgap>

for regular updates and announcements on registration which is envisaged to begin around early June 2016. You can also contact the President of APS Warrnambool, Kevin Sparrow at ksparrow93@gmail.com to register your interest and receive regular newsletters starting in February 2016 or just for further information.

Native Plant Propagators

Are you an expert native plant propagator?

Would you be interested in propagating for ex-situ plantings of rare and threatened flora?

I am compiling a register of propagators with contact details

to send to Botanic Gardens.

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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

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**Australian
Plants Society
Victoria Inc.**

F.J.C. Rogers Seminar



Terrestrial & Epiphytic Orchids

October 8 & 9, 2016

Hamilton, Victoria

Contact: fjcrogers2016@gmail.com

VOLUNTEERS TO PLANT AUSTRALIAN SPINY DAISY IN SOUTH AUSTRALIA'S MID NORTH

Abc.net.au September 8, 2015 Victoria Moore

Sixty to 90 specimens of a small endangered species of flower will be planted in South Australia's Riverland as part of a conservation project. The native Australian spiny daisy was thought to have been extinct until it was rediscovered on a roadside in the state's Mid North in 1999. The spiny daisy, officially known as *Acanthocladium dockeri*, is a low, spiny, pale grey bush with small, bright yellow flowers.

Acanthocladium dockeri



Image: www.goldfieldsrevegetation.com.au

National Trust of South Australia's Janet Pedler said the plant was officially listed as "presumed extinct" in 1992. "There have been so many twists and turns to this story that it could make a biodiversity conservation thriller," Ms Pedler said. "No-one really knows why spiny daisy to all intents and purposes had disappeared, and no-one expected to find it again when they did. "In many ways it is a pretty unassuming plant, but its continued existence is important because it was once thought to be extinct. "We're delighted to be able to bring her back."

Since rediscovering the flower, clones of it have been propagated to help to buffer the recovering species from sudden extinction. In July 2014, hundreds of cuttings were planted at the Banrock

Station wetland in the Riverland. Today those flowers will be planted at two sites at Wilabalangaloo Reserve near Berri. Berri Barmera Local Action Planning Group (LAP) project manager Leanne Rathbone said four volunteers would be planting the clones. "We will be involved in all aspects of on-ground management but within the guidelines of the spiny daisy recovery team," Ms Rathbone said.

"We would also like to set up the sites to be used as an education opportunity for people visiting Wilabalangaloo, especially schools. The priority now is to get the plants in the ground and maintain their good health."

LAP volunteer Kim Lohmann said two sites had been selected on the nature reserve where the public would be able to view the progress of the plants over time.

"They'll be planted around the homestead of Wilabalangaloo one on the top side and one on the bottom in soil that is going to be acceptable for their growth," she said. The project is run by Trees For Life and is a joint collaborative between National Trust SA, the Berri Barmera LAP, Banrock Station, Natural Resources Northern and Yorke and the South Australian Murray-Darling Basin Natural Resources Management Board.

Copied from Caley (APS Northern Beaches Oct 2015)

RARE PLANTS COULD DISAPPEAR AFTER LNP FAILED TO UPDATE PROTECTED SPECIES LIST, QUEENSLAND CONSERVATIONISTS FEAR

Abc.net.au May 4, 2015 By Eric Tlozek

Rare plants could disappear from the wild, and new species might not be discovered, because the previous state government weakened plant protections in favour of development, Queensland conservationists say.

The former Liberal-National Party government made it easier for companies to clear land, saying it was getting rid of green tape and making the system more workable. But the ABC has learned it also did not follow a recommendation to increase the protection for 150 threatened plant species, while downgrading the protection of dozens of rare plants.

"My understanding was that the previous government accepted all the downgrades but postponed the acceptance of the upgraded species," University of Queensland botanist Rod Fensham said. Scientists have questioned why the government did not process the upgrades at the same time. "It's fairly unusual. Usually the revisions are accepted in one fell swoop," Dr Fensham said. "Obviously it's a fairly unbalanced approach to refining that list."

The State Government periodically revises the protected status of plants when it gets new information about their population. Changing plant status affects people who want to clear land, like developers, resources companies and farmers. Figures in the former government have told the ABC they were waiting for government departments to assess the regulatory impact of the upgrades. But botanists said delaying the upgrades means those threatened plants could be at risk of clearing. Species mapping 'patchy and incomplete'.

Author and amateur field botanist Glenn Leiper is credited with rediscovering rare species of plants and contributing greatly to Queensland's knowledge of threatened species. He feared the regulatory process was compromised and has written to the new Environment Minister.

"I have my concerns, especially when there's a lot of species I believe that are waiting in a backup waiting list to be assessed to be included on the Nature Conservation Act," he said. "I think there needs to be a more appropriate process for especially the listing of threatened species and delisting of threatened species."

Botanists are also worried about other changes the former government made to protected plant laws. The LNP said the previous system, which required companies to survey land for rare and threatened plants before clearing was "unworkable" and not enforced. Now, landholders only have to survey if the area is considered "high risk" because rare plants are already shown to occur there on government mapping. But conservationists said species mapping is patchy and incomplete, because very little is known about many plants and habitats. "There is a great risk of plants being destroyed, threatened plants being destroyed," Wildlife Preservation Society of Queensland president Des Boyland said.

Rod Fensham agreed. "Because Queensland's a big state and because it's a discovery state, we're still discovering 50 new plant species a year," he said. "If we are allowing development in areas that we haven't adequately surveyed for species then we will undoubtedly be losing some of those populations of species."

There are also problems in NSW with the new Bio-diversity laws.

Sign the petition

http://www.standupfornature.org.au/petition?recruiter_id=109370

Go to Nature Conservation Council of NSW

<http://www.standupfornature.org.au/>
for more information

Bushfires are pushing species towards extinction

Tim Doherty, Emma Burgess, Martine Maron, Robert Davis *The Conversation* February 11, 2016

Massive bushfires in recent months have tragically claimed people's lives and destroyed their homes. These events are becoming more common as our warming and drying climate increases the frequency, intensity and extent of fires. But these impacts aren't just restricted to humans. Our native animals and plants are also affected by fire. Some species have even been pushed to the verge of extinction by the way fire patterns have changed. The International Union for the Conservation of Nature's Red List identifies "fire and fire suppression" as a threat to more than 100 threatened species in Australia.

Recent bushfires in Victoria, Western Australia and Tasmania have all taken a devastating toll on threatened species and unique ecosystems. Cape Arid National Park on WA's south coast is home to the only known population of the critically endangered Western Ground Parrot. The parrot lives in unburned heathland, and its distribution has shrunk rapidly in recent decades. Before last year's fires, only 140 birds were thought to remain. Then in October and November a series of bushfires burned 90% of the species' known habitat. It is not known how many birds may have survived the fires.

Also late last year, fires at Two People's Bay Nature Reserve destroyed habitat of the critically endangered Gilbert's Potoroo (the world's rarest marsupial), as well as habitat of the threatened Noisy Scrub Bird, Western Bristlebird, Western Ringtail Possum, Quokka, and the plant *Andersonia pinaster*. Four populations of the rare *Banksia verticillata* were also burned in November at the nearby Torndirrup National Park.

These extreme fire events are also impacting species in southeastern Australia. In December, 2,500 hectares were burned in Victoria's Otway Ranges. Native mammal populations in this region have been declining over recent decades, including that of the vulnerable New Holland Mouse. Such fires could worsen the outlook for these species, especially since foxes in the Otways are attracted to and increase their consumption of some mammals in recently burned areas.

The current burning of World Heritage forests in Tasmania is an equally concerning conservation catastrophe, and may be doing irreversible damage to these unique ecosystems. As part of its Threatened Species Strategy, the Federal Government has identified 20 threatened bird and 20 threatened mammal species for priority conservation action. The list includes many species threatened by inappropriate fire regimes, such as Gilbert's Potoroo, Western Ground Parrot, Mallee Emu Wren, South-eastern Red-tailed Black-Cockatoo, Western Ringtail Possum, Malleefowl, and Leadbeater's Possum.

But since these species evolved in a fire-prone environment, why is fire a problem for them now? Not only are fires becoming more severe and frequent in parts of Australia, but for many species there is not much habitat left. Such species have already declined and are often reliant on habitat that hasn't been burned for a long time, so a single fire can wipe out entire populations. This creates complex ecological challenges for land managers and conservationists - especially where prescribed burning is used to reduce fire risk to people and their property.

Prescribed burning can be a valuable tool in protecting habitat from wildfire, but it must be science-based and carefully targeted. Until recently, Victoria had a policy to burn 5% of its land area every year, a practice that was threatening sensitive ecosystems and species, such as the endangered South-eastern Red-tailed Black-Cockatoo. The recent lifting of the policy is therefore a major step away from arbitrary management targets and - hopefully - towards science-based conservation.

Other threats may have started the declines and made species more vulnerable to fire. These include habitat loss, disease and introduced predators. Therefore, it is vital that conservation plans consider interactions between threats. When a species has only a handful of individuals remaining, captive breeding and the creation of insurance populations are sometimes necessary. Climate change is expected to make fire patterns worse for wildlife in the future. We need political leadership on climate action if we are to understand and mitigate these impacts.

Attalaya collina

Gardens begins revitalisation of endangered species

The careful and nurturing process of revitalising the endangered Yarwun Whitewood tree species has begun in the Gladstone Tondoon Botanic Gardens' nursery.

This tree conservation project is a collaboration between the Gardens' team, led by curator Brent Braddick, and Gladstone Regional Council's Conservation team.

Small numbers of the species can be found at Yarwun but they are not regenerating in their natural environment.

Brent said land clearing, grazing, insects and fires had impacted the tree population but the species had a very viable seed, was drought tolerant and could handle poor

soil conditions.

He collected the seeds from a small stand of trees he had planted at the Gladstone cemetery some years ago.

They were then planted in seed trays and germinated within a few days.

There are now 400 small plants waiting to be planted out from tubes or repotted and grown into larger trees.

The next decision to be made will be about where to plant the seedlings within the next three months.

As they are an endangered species, the Yarwun Whitewood seedlings cannot be sold but can be grown on Council land.

UPPER HUNTER BUSHFIRES BRING RARE FLOWER TO LIFE

Abc.net.au October 9, 2015. (*Caley* Nov. 2015)



Image: www.flickr.com

A rare flower only found near Sandy Hollow in the Upper Hunter has flourished, exciting botanists and bushwalkers alike. Prior to 2013 only five specimens of the *Commersonia rosea* had ever

been sighted by a botanist. Bushwalkers and a botanist have reported the *Commersonia rosea* is now growing over several kilometres of rock shelf in the Wollemi National Park near Sandy Hollow. It is thought the Hungerford bushfire, which burned for 40 days near Martindale at the end of 2013, caused the plant's seeds to germinate.

Trevor Wooley from the Martindale Creek Catchment Landcare Group said the plant's seeds may have been dormant for some time. "Possibly 40 years," he said. "There hasn't been a really big fire in that area for, well, within living memory. There have been smaller fires, but about 1955-56 was the last really big fire."

Just five of the plant's specimens had been seen by a botanist prior to 2013. Mr Wooley said the blaze has uncovered new information about local plant species. "Botanically people have learned a lot from walking through the remains of that Hungerford fire and finding out what grows after the fire," he said. "We don't know very much - that's the bottom line."

Botanists Grafting to Save Oldest Plant

Lomatia tasmanica Kings Holly



Image: www.flickr.com

It is listed as endangered under the Tasmanian Threatened Species Protection Act 1995 and as critically endangered under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.

A member of the plant family, Proteaceae, that was flourishing on the super continent Gondwana before it broke up 150 million years ago, King's Holly is represented today by a scattering of about 500 shrubs in a remote gully in Tasmania's South-West Wilderness World Heritage Area. Legendary bushman Deny King spotted it there in 1937. Recognising it as an un-catalogued plant species, the wilderness-loving tin-miner reported it to science. He could not have known the extraordinary nature of his discovery, which was classified in 1967 as *Lomatia tasmanica*.

Because it has three sets of chromosomes, the *Lomatia* is known to science as a triploid, and is sexually sterile; only able to reproduce vegetatively. When a branch is broken from a shrub by the region's nagging winds it can establish new roots, creating a physically separate plant that is genetically inseparable from the original. So the 500 or so existing shrubs are regarded by experts as manifestations of a single plant.

"The whole species is just one plant, 1km wide. It never produces seed and it survives by growing up, falling over and sprouting up and it has been doing that for a very long time," a UTAS scientist said.

"So while other species, such as Wollemi pine, are more ancient, King's *Lomatia* is doubly remarkable."

"Not only is the whole species made up of just one plant, but as far as we know, that plant is one of the oldest clonal plants on land in the world."

UTAS, the Royal Tasmanian Botanical Gardens and the Tasmanian Government's Threatened Species Section have been working together on the project for decades. A scientific team is trying to ensure the ancient but vulnerable species, which is distinguished by glossy holly-like leaves and clumps of *Grevillea*-like (to a layman) waxy flowers, doesn't come to an abrupt end because of encroaching *Phytophthora cinnamomi* root rot fungus, a bush fire or some other unforeseen event.

Botanists have been trying to propagate the plant from cuttings since 1994, but progress towards a target of 50 plants has been grudging. After 21 years of hard graft there are 46 potted King's *Lomatia* plants of varying sizes in the nursery at the Royal Tasmanian Botanical Gardens. The oldest surviving plant – from propagation in 1998 – is about a metre tall. In the wild, King's *Lomatia* can reach a height of about eight metres. "It doesn't like root disturbance, so every time we pot it on we're losing plants, unfortunately," Natalie Tapson, Horticultural Botanist at the Royal Tasmanian Botanical Gardens, told www.digitaljournal.com

Research is continuing on tissue culture propagation and trials grafting King's *Lomatia* on to the rootstock of related species from Tasmania and South America are continuing. By putting it on to a different root stock, it's hoped that when you plant it out, or transfer it, you're not going to have that loss because the root stock is stronger," Ms Tapson said. It is hoped that successful grafted plants in the future can be planted out in the grounds at the Gardens for people to view.

Science is giving one of the oldest plants we know of a new lease on life. It's tenuous at this stage, but in trying to ensure the survival of this remarkable plant Tasmania may just be developing a unique horticultural offering for the world.

For this and other stories visit <http://www.brandtasmania.com/> This article was first published in the journal *Tasmania's Stories* Copied from *Calgaroo* Vol 43, No 1 Jan 2016

Save our Flora

Seed and Cuttings Exchange

Please send all requests directly to the person making the offer.

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. Please note that in order to streamline this activity addresses will be published with the offers so that people can apply to the grower directly. Where there is no address please send your request to saveourflora@gmail.com

Maria Hitchcock

16 Hitchcock Lane Armidale NSW 2350

Correa eburnea

Correa calycina

Callistemon pungens

Grevillea wilkinsonii

Zieria adenodonta

Zieria prostrata

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 granitica

Callistemon pearsonii

C 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 – plant just recovering from a winter battering also I need to do some more grafts.

Russell Dahms (email saveourflora@gmail.com)

Boronia clavata

Denise & Graeme Krake

752 Warrigal Range Rd. Brogo NSW 2550

Seed of

Hakea dohertyi

Hakea ochoptera

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. I think it's worth a try.

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 am looking for seed or cuttings of *Hakea pedunculata* which grows naturally on Cape York near swamps. We have moved into our new home at 210 Aireys St. Elliminyt Vic. and have now begun the task of reintroducing all the Banksia and Hakea species.

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

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. Test some of your seed periodically. It's worth asking seed suppliers for the age of certain species of seed before purchasing.

Requesting and sending cuttings by post

Please follow these simple steps.

Make a request

1. Send your request by email first. It will be forwarded to the grower so you can request cuttings and ask for the address.
2. Purchase an Express Post small satchel 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

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

Group Members

ANPSA Groups

APS Melton Bacchus Marsh Vic
 SGAP Ipswich Qld
 SGAP Sunshine Coast and Hinterland Qld
 APS Echuca Moama Vic
 Crommelin Native Arboretum NSW
 Swan Reserve Garden Vic

Botanic Gardens and Reserves

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

Nurseries

Bilby Blooms Binnaway NSW
 Cool Natives Nursery Armidale NSW
 Mole Station Native Nursery Tenterfield NSW

Seed Suppliers

Victorian Native Seeds

Study Groups

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