

Save our Flora

AN ONLINE INDEPENDENT NATIONAL PROJECT

Conservation through Cultivation

Project launched on 14th November 2013

Maria Hitchcock Administrator Bulletin Editor

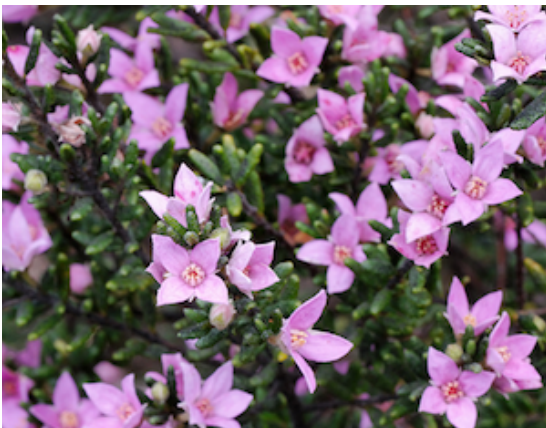
Bob Ross Conservation Legislation

Membership Individuals: 115 Groups: 15

Membership is free. Please encourage others to join.
Bulletins are sent electronic only. Feel free to pass them on.

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.



Boronia repandra

Congratulations to Leader of the Acacia Study Group, Bill Aitchison and his partner Sue Guymer who are individual members Nos 99 and 100. They have received a couple of rare New England acacias as a prize. Another prize will be sent to individual member No. 200.



Boronia exilis

Photo: D. Papenfus

Control of myrtle rust

Yates fungicide (**Zaleton**) has recently been registered for control of myrtle rust which can seriously affect plants from the Myrtaceae family. Zaleton is a combination of two fungicides, one systemic and one penetrant, both of which move into the plant. Yates product information states that Zaleton acts as both a preventative and a curative for the disease. Details of the product are available at:

www.yates.com.au/products/disease-control/concentrates/yates-zaleton-dual-action-systemic-fungicide

Save our Flora

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>

From the members:

Bob Ross (Tura Beach) writes:

The stuff on Noisy Miners is very interesting. We don't have any in our area, but we do have a resident population of little wattlebirds (*Anthocheara chrysoptera*) that chase away other little birds during nesting season. However once the wattlebird nesting season is finished the wattlebirds seem to move on and the little birds (wrens, honeyeaters, silveryeyes, etc.) return. We don't have a lot of hybrids in our garden -- although we do have some WA natives --

Matt Garrett (Hunter Botanic Gardens) writes:

I am a volunteer at the HRBG and am primarily involved with the Acacia Garden. Here I am trying (with other volunteers) to return the Acacia Garden back to how it was when its founder Terry Tame left a number of years ago now. Like Terry my aim is to establish a collection that not only represents the Acacias of the Hunter Region as a priority but to focus also on those species that are endangered or rare. I generally source seeds from Nindethana in South Australia. I would be interested to find out if any of your members can help in our quest to revitalise or increase our collection of rare and or endangered Acacias.

Charles Farrugia (Sydney) writes:

Hi Maria,
I live in Sydney's western suburbs where I have a garden that includes a large number of *Eremophila* species. I get most of these *Eremophila* as cuttings from Ken Warnes in South Australia. I grow them from cuttings or graft them onto *Myoporum* rootstock or preferable onto *E. denticulata ssp trisulcata* rootstock. This later rootstock is classified as a threatened species. This is hard to believe because it is so easy to strike as a cutting. I prefer using this species as rootstock because unlike the *Myoporum* it will have a root system emerging from the bottom of a tube within 2 to 3 weeks. Sometimes it can even strike if it is left sitting in water. I happened to find this species growing in hard dry clay soil on a friend's property at Dubbo NSW at the peak of the 2002 drought. Yet there it was, not thriving but it was surviving.

Amongst the *Eremophila* growing in my garden there are the following threatened species:

Flora that are Endangered (530 EPBC species)

Eremophila denticulata subsp. trisulcata
Cumquat *Eremophila* 16-Jul-2000
Eremophila nivea Silky *Eremophila* 16-Jul-2000
Eremophila pinnatifida
Pinnate-leaf *Eremophila* 16-Jul-2000

Flora that are Vulnerable (610 EPBC species)

Eremophila denticulata subsp. denticulata
Fitzgerald *Eremophila* 16-Jul-2000
Eremophila prostrata
Rainbow Valley Fuchsia Bush 16-Jul-2000
Eremophila vernicosa
Resinous Poverty Bush 18-Aug-20

I have successfully grafted all the above species apart from *E. denticulata ssp trisulcata*. As mentioned above it is easy to grow from a cutting. Apart from *E. vernicosa* all the other species have also been grown from cuttings.

Dr Bob Newby (Rockhampton) writes:

I am a member of the local SGAP (Rockhampton) and a keen propagator of native plants (including some locally endangered ones). Two species particularly come to mind: the swamp orchid, *Phais* and Thozet's alchornia, *Alchornia thozetii*.

Rob Winkler (Ipswich) writes:

I have some endangered or certainly quite uncommon species in my garden, which I've only been replanting for about 4 years now. Here a few that I have:
Callitris baileyi, *Hernandia bivalvis*, *Notelaea lloydii*

Kerry Rathie (Toowoomba) writes:

My rare plants are almost too numerous to mention. But these days, now I only have a suburban garden in Toowoomba, most are small plants, though I have a *Brachychiton* forest on my brother's 10 acres on the north side of Brisbane. Half of these are virtually unknown outside the tropics, & several are known by only one or two trees.

Save our Flora

From the members

Libby Woodward and Steve Syer (Denver Vic) write:

We are growing some of Victoria's rare and threatened flora and are increasing the number of species every year.

We would like to be part of your network of people interested in conserving our flora and we are happy to share information. Our seed is sold but the prices do not come close to covering the costs of collecting and cleaning the small and difficult species so we do it as much as a community service as a small income earner. We have our lowest quantities of seed at this time of year as we are just coming into seed collection time.

These are the threatened species for which we normally have seed available:

Dianella amoena Matted Flax-lily [E] Endangered in Australia. [e] Endangered in Victoria.

Leucochrysum albicans subsp. albicans var. tricolor (Hoary Sunray) [E] Endangered in Australia. [e] Endangered in Victoria.

Eucalyptus yarraensis (Yarra Gum) [r] Rare in Victoria.

Discaria pubescens (Australian Anchor Plant) [r] Rare in Victoria.

Acacia nano-dealbata (Dwarf Silver Wattle) [r] Rare in Victoria.

Cullen tenax (Tough Scurf-pea) [f] Listed under the Victorian Flora and Fauna Guarantee. [e] Endangered in Victoria (should be available next year)

We also have plants from 5 other threatened species that do not produce useful seed (like Grevilleas). We also have seed from some species that can be hard to get good quality seed for, like our *Banksia marginata* seed, where we have collected seed from 5 small remnant populations (of the tree form) and planted the resulting plants together. We now have over 300 *Banksia* plants growing together and we are collecting some very high quality, genetically diverse seed for revegetation projects.

You will find details on our website, the ABOUT page is perhaps the most helpful.

<http://www.victoriannativeseed.com.au/>

Jan Sked (Lawnton Qld) writes:

It seems I have been collecting and growing rare, threatened and unusual plants most of my life. After receiving the flyer for the Save Our Flora project, I went through my garden and listed all the plants that were shown as threatened in the EPBC list and the Census of the Queensland Flora 2013. It appears that I am growing 50 species that are on these lists. Here is my list of species. There are others that I have grown over the years, but are

no longer alive. I think the project is very worthwhile and I would like to contribute whatever I can.

Vulnerable Species

Acacia grandifolia

Alloxylon flammeum

Clematis fawcettii

Corynocarpus rupestris ssp. arborescens

Dendrobium bigibbum

Eucalyptus hallii

Graptophyllum ilicifolium

Hakea archeioides

Hakea trineura

Hicksbeachia pinnatifolia

Macadamia integrifolia

Melaleuca williamsii

Plectranthus leiperi

Sophora fraseri

Xanthostemon oppositifolius

Endangered Species

Corchorus cunninghamii

Davidsonia jerseyana

Davidsonia johnsonii

Diploglottis campbellii

Gossia fragrantissima

Graptophyllum reticulatum

Macrozamia platyrhachis

Phaius australis

Plectranthus habrophyllus

Plectranthus nitidus

Plectranthus omissus

Randia moorei

Queensland Census 2013

Vulnerable

Grevillea hodgei

Lepiderema pulchella

Leptospermum luehmannii

Phyllanthus brassii

Wodyetia bifurcata

Near Threatened

Argophyllum nullumense

Callitris baileyi

Cupaniopsis newmanii

Eucalyptus curtisii

Gossia inophloia

Graptophyllum excelsum

Hoya macgillivrayi

Lepiderema largiflorens

Livistona nitida

Lobelia membranacea

Oldenlandia polyclada

Pararistolochia praevenosa

Plectranthus alloplectus

Prumnopitys ladei

Remusatia vivipara

Schefflera bractescens

Senna acclinis

You can download a copy of the Qld Census here

<https://data.qld.gov.au/dataset/census-of-the-queensland-flora-2013>

Click on Vascular Plants

Save our Flora

Links

Victorian Native Seed

Libby Woodward and Steve Syer

Growers of high quality native seed

50 Mains Road

Denver VIC 3461

0438 507 898

<http://www.victoriannativeseed.com.au/>

Mole Station Native Nursery (wholesale)

David & Sarah Caldwell

Mole Station

Tenterfield NSW 2372

AUSTRALIA

T: (02) 6737 5429

F: (02) 6737 5443

W: <http://www.molerivernursery.com>

Cool Natives (retail/mail order)

Maria Hitchcock

16 Hitchcock Lane

Armidale NSW 2350

T: (02) 6775 1139

W: www.coolnatives.com.au

Plants of Tasmania (retail/mail order)

John Gibson

65 Hall St

Ridgeway

Tasmania 7054

T: (03) 6239 1583

F:(03) 6239 1106

W: <http://www.potn.com.au>

Lesley Page Botanical Art Blog

<http://www.lespagenn.blogspot.com.au/>

**Which rare and endangered flora are you growing?
Send us your plant lists and details of any nurseries
that you find useful as a source.**

Endangered Boronia

Boronia capitata subsp.
capitata WA

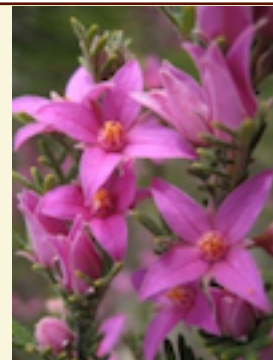
Boronia clavata WA

Boronia exilis WA

Boronia granitica NSW Qld

Boronia repandra NSW Qld

Boronia revoluta WA



Boronia granitica

<http://>

www.ehp.qld.gov.au

Endangered Epacris

Epacris apsleyensis Tas

Epacris barbata Tas

Epacris exserta Tas

Epacris glabella Tas

Epacris grandis Tas

Epacris hamiltonii NSW

Epacris virgata Tas

Endangered Eremophila

Eremophila denticulata subsp. *trisulcata* WA

Eremophila lactea WA

Eremophila nivea WA

Eremophila pinnatifida WA

Eremophila resinosa WA

Eremophila scaberula WA

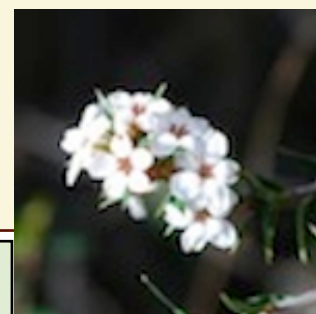
Eremophila subteretifolia WA

Eremophila ternifolia WA

Eremophila verticillata WA

Eremophila virens WA

Eremophila viscida WA



Epacris apsleyensis

www.flickrriver.com

**Do you have cutting
material of any of these
listedthat you are
willing to share with
other members?**

Save our Flora

Is your property a declared sanctuary?

The Humane Society International Wildlife Land Trust has a network of national and international sanctuaries on private lands and is dedicated to wildlife and habitat protection. They state:

'Protecting and preserving our habitats and ecosystems is essential to the survival of all wildlife, and every acre left unexploited safeguards native animals that desperately need our help to survive. The role of private lands has now become an integral part of the solution, and private landholders with a concern for wildlife and habitat protection are in the unique and important position to make a very real contribution to conservation efforts across the country.'

This link will allow you to see the range of sanctuaries across Australia

<http://www.wildlifelandtrust.org.au/index.php/sanctuaries>

You might be interested in a Conservation covenant

Conservation covenants are voluntary agreements made between a landholder and an authorised body (such as a Covenant Scheme Provider) that aims to protect and enhance the natural, cultural and / or scientific values of a piece of land. They can apply to all or part of a property and are usually registered on the title of the land.

The Federal Government brochure [Covenants for Conservation](#) provides information on covenant schemes throughout Australia, assistance for landholders and tax arrangements.

Further information about permanently protecting the natural or cultural values on your land can be found in the booklet [Gifts that keep on giving: A landholder's guide to land protection and conservation options](#).

There are a number of conservation incentive programs facilitated by local, state and federal government, and the not-for-profit sector. [Click here](#) for an index of these programs.

Information on covenanting programs that are approved for the purposes of income tax concessions is available [here](#). <http://www.wildlifelandtrust.org.au/index.php/member-resources/conservation-covenants>

A Guide to Private Conservation in NSW - Environmental Defender's Office NSW.

The Environmental Defender's Office NSW has summarised the various covenants available to landholders in the State. This includes information on covenant type, legislation, covenant scheme providers, eligible land, protection, changing or removing the covenant, and tax benefits. To download the guide, [click here](#).

'It is now clear that while establishing a national parks system was important, in a place like Australia it is not sufficient to preserve our biodiversity.'

Tim Flannery

"After the Future – Australia's New Extinction Crisis", Quarterly Essay, Issue 48, 2012

If you are interested in reading Tim Flannery's Quarterly Essay it is available from the website below for \$19.95 <http://www.quarterlyessay.com/issue/after-future-australias-new-extinction-crisis>

Email: enquiries@blackinbooks.com

It is also available as an eBook for your Kindle (\$4.58) or an Audiobook (\$17.47).

NB. Prices quotes are from Amazon

Save our Flora

Voluntary Conservation Agreements in NSW

by Bob Ross (NSW - APS Conservation Officer)

Are You Interested?

If you live in NSW and own land that you think contains a vulnerable or endangered native plant or plant community, you may wish to protect that plant or community even after you or your family have to sell the property (eg, when you become too old or sick to continue to live on the property).

Probably the best way to do this - if you live in NSW - is to take out a 'Voluntary Conservation Agreement' (VCA) on your property. A VCA will set covenants on your property that are permanently on the title of the land, and these will continue to be enforceable after you sell the land. There is also a small financial advantage to you as a landholder because Council rates are not assessed on the portion of your property that is covered under a VCA.

However, you should be aware that there are problems associated with establishing a VCA on your precious patch of bushland (why are you not surprised?) I'll list some of the ones I am aware of...

1. Before a VCA can be established on your property, it will go through an assessment process to determine if the reasons for establishing the VCA meet current guidelines and requirements (see below for more on this subject).
2. The big growth period in VCAs occurred over ten years ago, in the closing years of the 20th century. At that time the NSW Government and its agencies were actively promoting the idea, but in recent years the enthusiasm has cooled considerably, and the money available for establishment and ongoing assessment of VCAs has tended to dry up.
3. Because land under a VCA is not rateable, the local shire council in which the land resides is in effect subsidising the VCA. The NSW government does not reimburse local shires for the rate income lost through VCAs in a shire. In most cases this is not a significant amount of money since VCAs in most parts of NSW are not common. However in our shire council area (Bega) there are a lot of VCAs, and it can be argued that our local shire council is being unfairly penalised for

something it was not involved in at the time it was established.

4. When the time comes that you want to sell your property, the VCA will probably not enhance your property's sale price. In most cases the real estate agent or valuer will not have had any experience in selling a property with a VCA on the title, prior to your arrival in their office. The result may not be to your advantage, in a financial sense.
5. If you still want to proceed, after reading the above, you can read the official NSW website that describes VCAs

<http://www.environment.nsw.gov.au/cpp/ConservationAgreements.htm>

and you can then download the printable brochure <http://www.environment.nsw.gov.au/resources/cpp/OEHConsAgr2012.pdf>

and then email the Conservation Partners Program at conservation.partners@environment.nsw.gov.au

- Your application for a VCA will be assessed by comparing what you are trying to protect against the current priorities of the NSW Office of Environment and Heritage (OEH). These priorities change over time but they probably will involve...
 - the quality of the native ecosystem on your property (how pristine is it, and does it contain introduced 'weeds'?),
 - the number and status of the endangered or vulnerable native plants on your property (eg, are they found elsewhere, or is your property a critical habitat for an endangered native species?)
 - the location of your property – does it form part of a potential or actual corridor between other reserved land? How big is the area you want to be under a VCA? If your property passes at least 2 of the above tests, you may have no problems in getting a VCA approved on a portion of your property. However, even then you will need to be patient and be prepared for a lengthy process. Good luck!

Footnote: according to the official OEH website, "As at 30 June 2011, there were 310 conservation agreements throughout New South Wales, protecting an area of 134,046 hectares" That is an average of just over 430 hectares per VCA.

Save our Flora

Postscript from Bob Ross

'Regarding the *drying up of funds*, it is our feeling that the funds are much more restricted than they were 10 to 15 years ago... but that doesn't mean that it is not possible to get a VCA on a property if you happen to have something that the Department wants to protect!'

Do you have a VCA on your property?
 What is your experience?
 Have you had problems recently?
 Let us know so we can add your comments
 to the next bulletin.

Boronia clavata



Boronia clavata (Bremer Boronia) is a rare plant from WA, where it occurs in five populations totalling 97 plants altogether (at the time of survey) in the Bremer Bay area approximately 150 km east-north-east of Albany. All known populations occur within the South Coast Natural Resource Management Region. and it is listed as endangered. FloraBase also lists it as occurring in a small population near Esperance.

It is an upright, slender shrub, growing 0.5–1.5 m high and was once recorded as high as 2.1 m. The leaves are 10–20 mm long on a short stem. Flowers are yellowish to greenish, and the flowering period is from August to October. This *Boronia* grows in alluvial sand and loam and occurs in floodplains and river beds. The species' habitat appears to be quite specialised and confined

to narrow alluvial flats on sections of the Bremer River between spongelite cliffs. The species is not as showy as other *Boronias* and therefore has been overlooked as a good garden plant. I find it does best planted between other shrubs as it has an upright habit. It is pollinated by insects when in flower. It would probably look quite good planted in a clump.

Despite the rarity of this *Boronia* and its specific habitat requirements in the wild, I have found this shrub to be very long lived and very drought hardy. It is propagated quite easily from cuttings and could be grown in a wide range of habitats. It is surviving my drought conditions here. I suspect it is an old faithful in many native gardens around Australia.

Some Conservation Advice has been written for this species but as yet there is no recovery plan. A form called 'Heather Wand' is being grown by San Marcos Growers in California. Angus Stewart says that *Boronia clavata* has proven to be a more adaptable species than most boronias, being fairly reliable even in heavier soil types. Both Russell Dahms and I are offering cutting material of this excellent *Boronia*.

References:

http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=5538
florabase.dpaw.wa.gov.au/browse/profile/4408
www.smgrowers.com/products/plants/plantdisplay.asp?plant_id=2786

**Are you growing this species in your garden?
 Send us your comments.**

**Do you have an article on a listed
 EPBC plant you would like to
 contribute to our next Bulletin?**

Save our Flora

Warren and Gloria Sheather (Armidale) write:

Save our Flora is a great idea that should be embraced by anyone interested in the preservation of our unique flora. Congratulations to Maria and Bob on initiating this project.

Conservation through cultivation perhaps could be linked to Conservation and cultivation, meaning protecting areas where rare species occur in some type of reserves such as national parks or nature reserves and bringing rare species into cultivation by interested and concerned gardeners. Species preservation is then not just left in the care of federal and state environmental bureaucracies.

The Australian flora appears to be well served by classifiers. What the flora now needs are more cultivators.

“To a noisy miner, a garden of grevilleas is like a big McDonald’s” this quote comes from Bulletin 2 “Grevilleas and Noisy Miners”. In our experience a garden of grevilleas is not like a big McDonalds to noisy miners. This comes from years of experience growing native plants and observing bird behaviour. The main factor influencing the dominance of noisy miners is the lack of understorey. You have only to visit parks in the Sydney, and other urban areas, with an abundance of eucalypts and other trees and no shrub layer to see how this suits noisy miners and other large birds. Certainly no small native birds are present in these environments.

Over 17 years ago we started our native garden on a bare 900 metre high hill, west of Armidale on the Northern Tablelands of NSW. We soon realised that because of the Tableland’s frosty winters and our exposure to wind, that dense planting would be required so that plants could shelter and protect each other. Over the years we have established a series of dense shrubberies using a wide range of native plants. We place three plants in the one hole with holes spaced less than one metre apart. This is not everybody’s horticultural cup of tea but this planting has worked not only for us but has also created ideal habitat for small native birds. The garden is full of grevilleas with a conspicuous lack of noisy miners but with a proliferation of small birds including various honeyeaters, finches, wrens and thrushes. Our garden is constantly expanding and as shrubberies develop we are finding that our small bird population is increasing and occupying these areas.

We are growing plants from every Australian state and any cultivars with horticultural potential. One of our aims is to trial as many native varieties to test their suitability in our harsh climate. Plants that survive and thrive, in our garden, are likely to prosper in other, less harsh, environments.

We are constantly encouraging gardeners to grow native plants by example, via a talk back radio programme, a regular newspaper article and contributing to a number of web sites. Our own non commercial site is www.yallaroo.com.au This site has images and descriptions of over 500 native plants, a weekly garden diary and a section for the description of wildlife. We have a section in the NSW Australian Plant Society web site: <http://www.austplants-nsw.org.au/> our section is called From Our Cold Climate Garden and has a series of articles describing plants, other horticultural items and the wildlife that visits our garden, Yallaroo We also contribute items to the Armidale APS Group newsletter and their web site: <http://www.aps-armidale.org.au/> [Including](#) a monthly what’s in bloom diary.

Because of the density of our plantings we propagate over 95% of the plants used in the garden. The majority are propagated from cuttings. We use a Sage propagating unit with bottom heat and misting. Cuttings are dipped in red Clonex hormone gel and placed in 50 mm thumb pots with 6 per pot with commercial seed and cutting raising mix. This method is particularly successful with grevilleas as well as a wide range of other native plants. We should be encouraging gardeners to not only cultivate rare species but also create suitable habitat that welcomes small native birds to the exclusion of noisy miners.

Here are a couple of rare plants that we propagate.

Prostanthera petraea: is a member of the Lamiaceae family. This rare species was named in 2006. Some botanical publications, prior to 2006, list this mint bush as *Prostanthera* species B. The species is found in Boonoo Boonoo National Park and other areas around Tenterfield on the Northern Tablelands of New South Wales. *Prostanthera petraea* grows together with the white-flowering form of the more common *Prostanthera nivea*. It is unusual to find two *Prostanthera* species growing together in the wild.

Save our Flora



Prostanthera petraea

Prostanthera petraea is a small to tall shrub. The leaves are ovate with prominent stalks, up to eight centimetres long, two centimetres wide and strongly aromatic. Leaves are dull, olive-green above and paler beneath. The lobed flowers are two centimetres long, white, carried in terminal sprays and appear in late spring and early summer. Blooms are conspicuous and profuse. They are similar in colour and size to the flowers of the better known

Prostanthera lasianthos. Both foliage and flowers are attractive features.

Prostanthera petraea deserves to be widely cultivated. Not only because it is a handsome shrub but also because of the species rarity in the wild.

This native Mint Bush would be an interesting addition to a native shrubbery. This species propagates readily from cuttings.

Correa baeuerlenii is a member of the Rutaceae family and is known as the Chef's Cap Correa. This name refers to the pale green, tubular flowers that have a flattened hat-like calyx. The distinctive blooms are carried from March to August. Plants may reach a height of 2.5 metres. Judicious pruning keeps our plants to a dense height of 1.5 metres. Stems are rusty and covered with tufts of fine hairs. The leaves are curved, covered in prominent glands and have a slightly sweet perfume when crushed.

Correa baeuerlenii has proved to be a hardy and free flowering shrub. The species prefers dappled shade or partial shade and would make an excellent foreground specimen in shrubberies. Light pruning is appreciated. Growth habit, foliage and flowers are attractive features. In fact the foliage and flowers are completely different from other *Correas*. The Chef's Cap Correa is only found in the south eastern coast and ranges of New South Wales. The species is considered to be vulnerable with a range greater than 100 kilometres but in small populations. Some populations are in reserves but inadequately protected. There are less than 1000 plants in reserves. We propagate the species from cuttings. We have found that the cuttings are slower to produce roots than other *Correas*.



Correa baeuerlenii

Bushfires

It's bushfire season and an article in the Conversation prompted me to include something here.

After the [early onset of the 2013-14 bushfire season](#), it is worth reviewing which homes are more likely to be left standing when the fires inevitably return. One of the most important factors to note is that [most house losses during bushfires](#) in Australia have occurred within 100 metres of bushland - and virtually all losses within 700 metres of bushland. So the measures discussed here relate principally to houses close to bushland areas.

http://theconversation.com/which-homes-will-survive-this-bushfire-season-20072?utm_medium=email&utm_campaign=Latest+from+The+Conversation+for+6+January+2014&utm_content=Latest+from+The+Conversation+for+6+January+2014+CID_69aee2f770483b9ba18317de3b548195&utm_source=campaign_monitor&utm_term=Which%20homes%20will%20survive%20this%20bushfire%20season

The newly formed **Climate Council** has just released its first major report on the **link between climate change and bushfires**. Here is an extract from their chapter on biodiversity.

'Ecosystems in which the natural fire interval is very long (>100 years) can undergo substantial change if the fire frequency increases. After successive fires in 2003 and 2006/7 in Victoria, Acacia shrublands have replaced some mountain and alpine ash forests because there was insufficient time between fires for the ash trees to become reproductively mature (Lindenmayer et al., 2011; Bowman et al., 2013b). This change in vegetation has important flow-on effects for other species, especially the ~40 vertebrate species that rely on the hollows of 120-150 year old mountain ash trees for habitat, such as the Leadbeater's possum (Fig. 10a).

Changing fire regimes, due to a constellation of factors including climate change, are already affecting ecosystems in many parts of the world (see section 5) and will continue to do so. Indeed, changed fire regimes, driven by climatic changes, may have

greater impacts on some species and ecosystems in the future than the direct impacts of warming and rainfall change (Battlori et al., 2013; Bowman et al., 2013c). Some of the world's most iconic ecosystems could change beyond all recognition within a few decades. One such example is the landscape of the Greater Yellowstone Region of the eastern United States. This region has been dominated by conifer species for over 11,000 years. Projected increases in fire frequency due to the changing climate could shift the vegetation substantially to either woodlands or "non-forest" vegetation by the middle of the century (Westerling et al., 2011b).

For the full report go to:

<https://www.dropbox.com/s/zxzcycukcnqt3o0/cc.bushfire.report.web.pdf>

The Climate Council was established in September 2013 to replace the former Climate Commission, abolished by the Coalition Government when they won the election. It is an independent, non-profit organisation funded by donations from the public. If you would like to assist go to climatecouncil.org.au

Bushfires in Victoria February 2014



View from O'Reilly's Orchard [#WirrabaraForest](#) as fire comes [#bangorfire](#)http://pbs.twimg.com/media/Bf_OyfwCIAEGiQX.jpg

As many of our members live close to natural bush areas you will have hints and comments about avoiding fires. Please send us your thoughts on the topic for the next bulletin.

Cuttings Exchange

Charles Farrugia writes:

I am willing to donate cuttings. I just gave a heavy pruning to my *Eremophila* so cutting material might be limited.

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.

Send your request to

Charles Farrugia

saveourflora@gmail.com

Boronia clavata

Send your request to

Russell Dahms

saveourflora@gmail.com

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. (Ed)

Plant Lists

I have the following plant lists sent by members which are available on request. They are too large to include in the newsletter. I am always happy to receive any other local lists to add to the collection.

Great Lakes (NSW)

Helidon Hills (Qld)

Sydney (NSW)

Privacy

Your privacy is protected with this group. Unless you specify that we can publish your email, we will only use the group email on this page. All requests will be

forwarded on to the grower and you can then establish your own private email exchange.

Hunter Region Botanic Gardens Ltd.

List of plants in Rare and Endangered Garden as at 24.01.14

Adenanthos detmoldii

Syzygium moorei

Davidsonia johnsonii

Baloghia marmorata

Syzygium hodgkinsoniae

Corchorus cunninghamii

Rhododendron locjiae

Prumnopitys ladiae

Homoranthus montanus

Eucalyptus pumila

Macadamia tetraphylla

Cryptocarya foetida

Diploglottis campbellii

Amorphospermum whitei

Acacia bakeri

Diospyros mabacea

Endiandra floydii

Anetholea anisata

Cassia marksiana

Senna acclinis

Sophors fraseri

Bosistoa transversa

Randia moorei

Lepiderma pulchella

Archidendron muelleriana

Atalaya multiflora

Gossia fragrantissima

Diospyros mabacea

Endiandra compressa

Harnieria hygrophiloides

Uromyrtus australis

Eucalyptus micheliana

Myrsine richmondensis

Eucalyptus largeana

Eucalyptus infera

Murdannia graminea

Graptopyllum ilicifolium

Gymnostoma australianum

The Drought

Russel Dahms writes:

Here in S.A. all sorts of temp records are being broken - hottest day so far 45.7 degrees Many plant losses in the ground in supergrow tubes.... Rutaceae family suffering the most. Wind gust over 100 km/hr bring down 100+ year old trees. No rain at all for three months....

About to break the record this week for number of days over 40 degrees. Wednesday (12/2/14) expected to be 42 degrees. One big fire in Flinders Ranges - now has been burning for three weeks...

Ros & Ben Walcott (ACT) write:

We are as dry as a chip here in Canberra and majorly HOT. We are having more damage in the garden now than during the ten year drought and it is because of the extra heat. Well shaded and well watered banksias in pots are shriveling up overnight. We have lost a lot of plants and not only young ones.

We are struggling to get enough water onto the garden to keep it going until the rains come. We have had 8mm since Xmas and not much before then either. The irrigation system cannot cope and we are carrying buckets of water around the garden in our cart and hauling hoses in every direction, but not far enough. We realised very early that we had not put in enough standpipes in our garden and are paying for it now. We will add more this winter when we can get a plumber again.

Ian Anderson (ACT) writes:

It is very dry in the rural areas around Canberra. Hardly any rain over the last few months. Fortunately Canberra itself has had good water reserves since the Cotter Dam Wall was significantly enlarged several years ago.

Rare plants at my Burra block about 35 km from Canberra include *Grevillea beadleana* (one planted specimen) and *Grevillea Boongana Spinebill* (one planted specimen). This cultivar was developed by the late Sid Cadwell who I met once near Rylstone in the Central New South Wales Tablelands. Also growing are a couple of planted specimens of the rare button wrinklewort *Rutidosus leptorynchoides*.

Bob & Dot O'Neill (Vic) write:

We had 19mm of rain in the first week of Jan, 7mm on 26th, since then it has been full blast, with at least 5 days of 40C plus, plus numerous days in the 30C plus range. The 3 tanks are now low, so what remains is left for the nursery, the garden is watered from the mains, or else lose a lot of plants. In the last weeks we remulched the whole garden, in my mind that completing the establishment of the garden. There are numerous gaps

from losses which will be filled once the rain arrives and the temperature tames down. The biggest losses have been epacris, lechenaultias and correas. Most of the losses may be replaced from established plants in the nursery. At present there is a strong presence of smoke drifting about from the fires in the region, though none are of any threat to us.

Re plant material, we have a good range of mix of plants, though I do not know if any are deemed as rare. We have a collection of sorts of *Lechenaultia* species, maybe 5, with a total number of forms of about 17 different plants, mainly *L. biloba* and *L. formosa*. The value of these is not the rarity so much as the fact that they are all in the one collection. I would be most interested in expanding that collection, and to help others expand their collections likewise. I am learning that there is a fine art in growing and maintaining *Lechenaultia* plants in the open garden, but we are having some successes.

The genus that has really thrived is the *Eremophila*. Plants that are just shy of 3 years have developed into large, dense, healthy plants that flower for extended periods. We have had happy success with cutting grown plants such as *E. nivea* and *E. macdonnellii*, something I had not counted on. We have 3 bottle trees approaching 3m, all growing very happily over this summer period, they are very much at home. To make them feel that they are in the monsoonal range, they are being watered regularly over the warmer months, and have grown over a foot in that period. The hybrid grevilleas such as Peaches & Cream are also growing very nicely.

As you may have guessed, we are engaged in constant plant propagation. During the heat, all the cuttings have been removed from the hothouse, and these have been relocated to a position under the house's east veranda. They are on bottom heat, they are not protected from the open air flow, and watering is done via a watering can. Not perfect, but we do have a fair degree of success, ranging from zero to 100%, probably averaging about 60%, highly depending on the difficulty levels of the cutting material. In a good week there will be about 20 - 30 struck cuttings, a poor week maybe half a dozen, that figure highly influenced by what kind of material dominates the cutting ranks. Lechenaultias are usually quick and easy, some correa forms are taking up to 8 months. A friend had tried for years to strike a Geraldton wax form with no success. We struck 4 plants out of 30 cuttings and he is thrilled; I guess persistence is what really counts.

We are tired of the heat and have had to adapt our daily lives to accommodate the conditions. Watering had been time consuming. We work outside in the cooler hours, then retreat indoors or find some other engagements that are out of the sun.

Climate Change Threatens Eucalypts Extinction

David Twomey

As they feel the impact of more severe heatwaves, droughts and floods the future is looking grim for some species of Australian Eucalyptus trees.

Researchers from the University of Queensland looked at such effects on more than 100 Eucalypt species, finding that some may be wiped out from increasingly extreme weather conditions.

ABC News reports the UQ study was modelled on two temperature scenarios. The first scenario was for an increase of one degree Celsius by 2055 and an increase of just over two degrees Celsius by 2085. The second, more extreme scenario saw an increase of 1.5°C and 2.5°C in those years respectively.

Professor Clive McAlpine from the UQ says that currently, temperatures are tracking at the extreme end of the range, and without mitigation they will continue to do so. "We're basically locked into a warming of 3.5 to four degrees globally by the end of the century unless we can have some very aggressive mitigation to reduce greenhouse gas," Professor McAlpine told ABC News.

The study found that drought appears to be the biggest threat to gum trees, out of all the weather conditions it considered. "They can't cope with moisture stress and when you combine heat stress and drought, that is when eucalypts start to die or their canopy deteriorates," Professor McAlpine said. The fact that Eucalyptus trees have long regeneration times, in combination with the short dispersal distances of their seeds, indicates that they may not be able to keep up with the pace of climate change, he said.

The research shows that gum trees have moved from central regions of the country toward the east and south coast, and that migration to more moderate conditions could also have a negative effect on native wildlife. Professor McAlpine said this was especially the case in interior regions of the continent. "Because those trees provide nectar, they provide resources for wildlife so that those animals that depend on them will not have those resources," he said.

David Twomey is a journalist with *Eco News* where this article first appeared.

If you come across any articles
you would like to share
please email them to Maria

Some endangered Eucalypts



E. burdettiana WA

Image: florabase.dpaw.wa.gov.au



E. crenulata Vic

Image: www.angelfire.com



E. gunnii Tas

Image: www.jparkers.co.uk

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

Botanic Gardens

Hunter Regional Botanic Gardens
Tamworth Regional Botanic Gardens

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