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: 136 Groups: 17 International 2

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

People joining up after e-Bulletin No 5 is published will receive the latest e-Bulletin only. Earlier Bulletins can be sent out on request. 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.

Phebalium distans Image: southburnett.com.au

In this issue:

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

From the members:

Margaret Kerr (Qld) writes
The floods in 2013 devasted our 30 acre property, acres of riverbank we eroded in the floods, also lost 5 acres of pristine rainforest and mangroves etc on our property on the Burnett River, this area had seen lots of floods since the 1800, s but this flood took the whole area, we wonder what has changed on this beautiful river to cause this massive erosion. Dams, barrages , cane farms building retaining walls to protect mills, up river from our property. All these changes have happened after the 1942 flood before this our remnant rainforest area had been untouched.

Brenda Martin (Vic) writes:
I am a friend of Wendy and Bob Ross, and I have now moved to Victoria. I would like to be put on the list for receiving a bulletin. I spent many hours growing plants when I lived near Wendy and Bob, and we always shared our plants around whenever we could. It is one of my passions.

Peter Brown (Qld) writes:
Bob Newby was kind enough to pass on the contact details of Save Our Flora. Just FYI, I'm a PhD student presently studying *Alectryon ramiflorus*, in Bundaberg, and had also been a horticulture lecturer for many years.

Rosemary Race writes:
I was just reading Victoria Tanner's article and there is something she can do to save her native garden when she sells her home or passes away its a legal terminology called 'a covenant' or 'a caveat'. Not sure which one, but you can go to a solicitor and have it done and placed officially on your title to protect your garden specified area.

You could also try any number of Heritage Protective sites and ask them what they do to protect gardens.

If you don't have any luck you could also write it in your Will and any Codicils you make to your Will that you require this in case your children, husband or grandchildren decide to sell your home and share the proceeds not realising the love and care it took you to put into your garden as a stipulation of your wishes. It is very difficult, I know Clive Beazley at Heronswood thought the same when he returned to his old home and saw the garden had almost disappeared and been replaced with concrete steps.

I know when I sold my own lovely garden home in Mt Martha each time I go it's overgrown and I sometimes think I should knock on the door and say can I have this and this and this because I know one day when I drive past there might not be a garden at all, because the new owner said she wasn't concerned about the garden!

Stella Savory (Hunter Botanic Gardens) writes:
We are happy to exchange seed and cutting material with other people in the group, enquiries are best directed to the Herbarium.

We experienced a moderate outbreak of myrtle rust about eighteen months ago but fortunately this summer we haven't seen any further evidence and plants which initially succumbed to infection were propagated in the early stage using unaffected material and are now growing successfully again.

Ian Telford (UNE Herbarium) writes:
Zieria adenodonta again. How did the rare species turn up in a Melbourne garden? I suspect via the Australian National Botanic Gardens where the species has been cultivated for many years from collections from near Binna Burra. The species was offered for sale by Floralands Nursery, Kariong, perhaps again via cuttings from the ANBG.

Zieria adenodonta is not just on Mount Warning, also occurring on acid volcanics in Lamington National Park in Qld where it appears to be restricted to the Nixons Creek catchment. Thus all known populations lie within national parks.

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

Save our Flora

Phebalium daviesii Hook.f.
St Helens Waxflower (Tas)
Rutaceae EPBC Critically Endangered

Some time ago I purchased one of these from a Tasmanian nursery not knowing how rare it was. I'm a bit of a Rutaceae nut so am always on the lookout for different varieties and species which might survive here in New England. When I looked it up I was surprised to see that it was a very rare species.

Description: *Phebalium daviesii* is a medium sized woody shrub growing up to 2.5m high by 0.6 - 1.5m wide. Flowers vary in colour from white to pale yellow.

Occurrence: It occurs near St Helens on the North east coast of Tasmania. The species was believed extinct until 5 plants were found on the George River in 1990. Prior to this the most recent collection was in 1892 just under a century before at Constable Ck (May not have that name any longer). In 1993 a second population was found on two private properties on the other side of George River and about 200m upstream. By 1996, the downstream population numbered 2 plants (from the original 5) and the upstream group contained 49 plants. Out of them all 44 were adults and 7 were seedlings. Two years later less than 40 plants were counted. By 2001, that number had dropped to 23. It is believed that regeneration of the species was the result of fires which occurred on the sites in 1969 and 1983. The original Constable Creek site may have disappeared due to mining activities.

Habitat: *P. daviesii* grows naturally in free draining coarse sandy soil among exposed granite boulders. It is located on moderately steep E and N facing river banks above the waterline in a narrow valley. It forms part of a heath/wet sclerophyll understorey of a riparian woodland dominated by *Eucalyptus viminalis, Allocasuarina littoralis, Acacia spp., Leptospermum lanigerum and Zieria arborescens.*

Reproduction: Flowering occurs during the warmer months from September to mid January. Seed may be dispersed by ejection, ants or flowing water. While plants produce copious amounts of seed, the soil underneath is devoid of it, leading to the conclusion that seed may be washed away when the river breaks its banks. Seed appears to float well. Although small in number this species appears to exhibit a high level of genetic diversity, which is good for recovery.

Phebalium daviesii
Image: bie.ala.org.au

Threats: The area is heavily grazed and farmed with resultant invasive plant species. Habitat alteration and disturbance, fire suppression and an alteration in water flows all impact on the survival of this species. Unfortunately the species is not reserved. A conservation covenant is in place on one of the private properties where it is growing.

Enrichment: The western bank population was supplemented with plants propagated from cuttings and planted in 1998. Of these 98 were alive in 2001. In similar plantings at other sites, 224 plants have survived. Hopefully they will form the basis of a stable population.

Recovery Plans: The plan commenced in 1994 and aims to:

- extend known populations
- protect habitat
- promote community awareness
- continue surveying
- manage weeds and other threats
- regulate degradation to riparian vegetation
- seek out other populations
- determine if fire is required for long term management

Ref. http://dpipwe.tas.gov.au/Documents/Phebalium-daviesii-

Links

Atlas of life in the Coastal Wilderness is building an amazing resource based on public sightings. You can register your own sightings, view those of others, check out surveys, etc. The aim of the Atlas of Life in the Coastal Wilderness (ALCW) is to encourage understanding of our unique, coastal wilderness in southern NSW. Atlas of Living Australia (ALA) are providing support to set up online observation and survey forms, with the ability to upload photos, and download field guides and species fact sheets. (*ALA website: http:www.ala.org.au/about/*)

Atlas of Life in the Coastal Wilderness is cooperating with other organisations as well, including the Sapphire Coast Marine Society, Pambula Wetlands & Heritage Project, the Office of Environment and Heritage (NSW National Parks & Wildlife Service), Bega Valley Shire Council, Auswide Projects, Southern Rivers Catchment Management Authority, Nature Coast Marine Group, Landcare NSW and the Australian Museum.
http://alcw.ala.org.au/bdrs-core/alcw/home.htm

From the members cont:

Lee Esdaile

As Secretary of Tamworth APS I get to pick up the other states' journals and Victoria's latest one had photos of the flowers of *Eucalyptus synandra* (Jingymia mallee) which I'd never even heard of. I can't imagine why its not being propagated commercially. Anyway when I tried to buy either plants or seed there just doesn't seem to be any available. I contacted the author of the article who says his four trees are all growing well, so it obviously does OK outside WA. But Nindethana doesn't have it, nor does the CSIRO seed bank. I've emailed the leader of the APS eucalypt study group (no reply so far), and have just contacted King's Park and Mt Annan. One can only wonder what other gems there are out there that not enough is being done about.

Critically endangered
Phebalium daviesii Tas
Phebalium distans Qld

Vulnerable
Phebalium glandulosum ssp eglandulosum NSW Qld
Phebalium lowanense SA, Vic
Phebalium whitei NSW Qld

Critically endangered
Banksia anatona WA
Banksia aurantia WA
Banksia fuscobractea WA
Banksia serratuloides ssp perissa WA

Endangered
Banksia brownii WA
Banksia cuneata WA
Banksia ionthocarpa WA
Banksia mimica WA
Banksia montana WA
Banksia nivea ssp uliginosa WA
Banksia oligantha WA
Banksia pseudoplumosa WA

Vulnerable
Banksia goodii WA
Banksia serratuloides ssp serratuloides WA
Banksia sphaerocarpa var. dolichostyla WA
Banksia squarrosa ssp argillacea WA
Banksia verticillata WA

Does anyone have *E. synandra* growing and would be happy to share seed?

Save our Flora

A Declared Weed and Alien Invader
[WHEN NATIVE PLANTS BECOME WEEDS]

As proponents and growers of native Australian plants we often talk and write about Australian natives that are rare and endangered – only a few plants left in the wild and if we don't act now another native species will disappear forever.

However there is another side to this picture. Consider an Australian native plant that was restricted to rocky hillsides in a very restricted area of inland SE Australia at the time of arrival of the first Europeans. And now – over a hundred years later, this native plant is classed as a declared weed, an invasive environmental pest plant and an ''alien invader'' in most states of Australia and a dozen other countries around the world. In the ACT it is a 'Class 4 Pest Plant', and plant nurseries are banned from selling it. In many Australian areas it is described as a noxious weed on the same list as Cotoneaster, Cape Ivy and Lantana.

What native plant am I talking about? You probably already guessed; it is Cootamundra Wattle. It was named *Acacia baileyana* by Ferdinand Von Mueller in 1888 after the botanist Frederick Bailey who sent a specimen to Von Mueller. Since then *Acacia baileyana* has become a favourite plant in English glasshouses, but in South Africa and California it is considered to be a bad weed (in South Africa it is labelled an alien invader!)

I first saw *Acacia baileyana* in its natural habitat when I visited Ulandra Nature Reserve near Cootamundra, NSW in October 1991. The attached photos show the wattle growing in its natural habitat – poor granitic soils on the edge of Mount Ulandra – a 3900 hectare reserve surrounded by totally cleared agricultural land. Perhaps that helps to explain why Cootamundra wattle has been so successful when Europeans helped it to escape from the limited confines of the area around Cootamundra – it had to be a tough resilient plant to survive in this environment.

Today *Acacia baileyana* is the floral emblem of the town of Cootamundra, but even there you will be lucky to find more than a few scattered trees. I suspect most people in this part of NSW know pretty well what plants are valuable as food and stock feed, and *Acacia baileyana* is not one of them.

So what is the lesson for those of us that enjoy seeing Australian native plants in the bush and in our gardens? I think the first message for me is a big dose of humility… I don't know why so many native plants struggle to survive, and others become worldwide pests and 'alien invaders'.

I think the second message – at least in my mind – is to value native plants in the bush, where they have carved out a niche for themselves through thousands of years of evolution. I feel a deep sense of sadness when I see and hear my fellow Australians denigrate and cut down healthy patches of native bush. They are destroying something that can never be replaced, and we have lost a chance to try and understand why and how the plants and animals that lived in that patch learned to adapt to the local conditions.

Save our Flora

Propagation Tips and Tricks

Maria Hitchcock

As many of us are expert propagators - we have to be to be growing and propagating rare and endangered plants - I thought I would include a permanent section into the eBulletin for us to share our techniques, many of which have been developed over the years through trial and error. I would welcome your hints and comments as I'm sure we'll all learn from them and improve our own methods. You could also print out this page and place it in a folder for future reference.

My first packet of seed arrived (***Hakea ochoptera***) from the Krakes (thank you) with this suggested method.

Sow individual seeds into a tube of potting mix. The seed is placed on the mix and a 1cm layer of sand or potting mix is spread over the top. This reduces disturbance in the potting on process. The plant is then free to grow on in the tube undisturbed.

Maria's method for growing ***Hakea, Banksia, Telopea, Lomatia, Stenocarpus*** seed (with large wings) learned from the late Dr Harry Bell.

Fill punnets level with the top with seed raising mix (1:1:1) coir peat, fine vermiculite, fine perlite. Place individual seeds vertically in the mix with the seed buried and part of the wing exposed above the surface. They should look like sharks swimming. If there is no wing attached pretend there is one and bury the seed accordingly. Place punnets in a tray with about 1cm of water in the bottom. You need a semi-shaded warm sheltered spot with some light but no wind. Replace the water in the base as needed. I then prick out seedlings into individual tubes filled with potting mix. I have been using this method for over 30 years with excellent results. Seed can be sown all year round. I have also recently started to soak the punnets in smoke water before sowing seeds to improve germination.

Maria's method for growing ***Eucalyptus, Callistemon, Melaleuca, Kunzea, Babingtonia*** seed or any other fine seed.

Fill punnets level with the top with seed raising mix (1:1:1) coir peat, fine vermiculite, fine perlite. Sprinkle seed lightly over the top and barely cover with a fine layer of seed raising mix. Place punnets in a tray with about 1cm of water in the bottom. You need a semi-shaded warm sheltered spot with some light but no wind. Replace the water in the base as needed. I then prick out seedlings into individual tubes filled with potting mix. I have been using this method for over 30 years with excellent results. Seed can be sown all year round. I have also recently started to soak the punnets in smoke water before sowing seeds to improve germination.

Phil Trickett's method for **grafting cuttings on cuttings.**

It sounds a bit strange but Phil Trickett (Milton NSW) has had excellent results using this method. He uses a hardy easy to propagate rootstock and then with a wedge graft inserts a hard to grow cutting in the top. This is then taped together with grafting tape. Phil usually leaves 1-2 leaves on the base cutting and a few leaves on the top cutting. The base cutting is then treated just like any other cutting, dipped in hormone and then placed into a peat plug. Phil always dips all cutting material in a very dilute bleach solution for a couple of minutes and into a water rinse before preparing the graft. I am trialling Phil's method with *Eriostemon verrucosus* onto *Philotheca myoporoides.* The cuttings are still looking good after a month. As the top develops leaves the base cutting ones can be removed.

Grafting is excellent for growing plants which are hard to grow on their own roots. Most grafting is done onto parent plants grown especially for the purpose. The benefit of cuttings on cuttings is time - you don't have to sacrifice a plant which has taken a year or so to grow.

I'd welcome your comments.

Save our Flora

Phebalium whitei Paul G. Wilson
Granite Belt Phebalium
Rutaceae EPBC Vulnerable

Description:
P. whitei is a shrub growing to about 60cm in height with bright yellow flowers arranged in groups of 1-4 at the ends of stems. It resembles *P. squamulosum* but differs by having longer petals and is considered to have the largest flowers of any *Phebalium* species. The petals are approximately 8mm long x 3.5 mm wide with silvery scales on the lower half and rusty scales on the upper half. The branchlets are covered with rusty scales. The leaves are oblong to elliptic, up to 60mm x 10mm with a narrow channel and a rounded apex. The margins curve slightly downwards. Upper surfaces are smooth while lower surfaces are covered in silvery scales. Flowering occurs from July to November.

Distribution:
P. whitei occurs naturally in granite country along Bald Rock Ck from Lyra to Wyberba near Stanthorpe in SE Qld and is reserved in Girraween NP where about 1000 plants were documented in 2001 over an area of 10 ha. They grow in heathland in moist granite soil, in cracks between rocks, and among granite pavement and boulders near the creek in shallow soils. It also occurs within the Border Rivers Maranoa-Balonne Natural Resource Management Region (Qld). It overlaps with White Box-Yellow Box-Blakely's Rd Gum Grassy Woodland and derived Native Grassland.

Threats
Bushfires at inappropriate times, changes in land use patterns and visitor pressure in Girraween NP all put pressure on the survival of this species in the wild. It is a popular garden specimen so is unlikely to die out. Research has been centred on monitoring programs and some propagation trials to determine the requirements for successful establishment. Local Actions involve constraining public access to certain sites, ensuring weedicides are used with great care around known populations, ensure road and track maintenance activities do not impact on the species as well as private land use. The development of a suitable fire strategy is crucial with maps being developed and forwarded to RFS offices.

Recovery
A recommendation has been made to conserve the species through seed collections, establishing corridors for linking isolated populations and developing national translocation protocols if considered necessary. The conservation advice was approved by the Minister on 1/10/2008. However it was decided not to go ahead with the recovery plan and it was placed on the Not Commenced list in November 2009. It was listed as Vulnerable on the Qld list (July 2012) as vulnerable.

Phebalium whitei
http://www.anbg.gov.au/images/photo_cd/S1710C5196856/068.html

Cultivation:
The Australian National Botanic Gardens have noted that this species is difficult to maintain and it is slow growing. It is an outstanding shrub when in flower but it obviously needs specific growing conditions. This could be a species which would benefit from grafting. The late Phillip Strong, an avid propagator in the Newcastle area, supplied nurseries with grafted plants in the latter part of the last century. Bilby Blooms plant list (Feb 2010) have it listed as requiring 'well drained light to medium soils in part shade, overhead cover. Mulch well. Best in a pot. Slow growing & difficult in the ground'.

Refs:
http://www.environment.gov.au/biodiversity/threatened/species/pubs/19322-conservation-advice.pdf
http://anpsa.org.au/grevSG/grev55.pdf

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
Callistemon pungens
Grevillea wilkinsonii
Zieria adenodonta

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

Additions
Xanthostemon arenaris
X verticulutus/seeds or cuttings
Kunzea flavescens
K graniticola
Callistemon pearsonii
C flavovirens{seeds}
Melaleuca irbyana
Lilaeopsis brisbanica {Water plant}
Hernandia Bivalis
Spathoglottis Pauliniae {Tropical ground orchid}
Rhododendron Lachiae

Charles Farrugia
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

Boronia clavata

Denise & Graeme Krake
752 Warrigal Range Rd. Brogo NSW 2550
Seed of
Hakea dohertyi
Hakea ochoptera
Hakea longiflora
Grevillea maccutcheonii, [this seed is still green]

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.

Do you have any EPBC plants growing in your garden with sufficient foliage to share cuttings with our members? Let me know and I'll print it here. It would be easier if we can add your address so that members can contact you directly. Please make sure you follow the protocols on the back page. (Ed)

Save our Flora

Requesting and sending seed by post

Please follow these simple steps.

Make a request

1. Send your request by email first. It will be forwarded to the grower so you can request seed and ask for the address.
2. Send your request enclosing a self-addressed envelope with two 60c stamps attached. Post the envelope.

Send seed

1. When you receive an envelope with a seed request, package up the required seed which includes the name, provenance (if known) and date of collection. Add any tips on germinating the seed and post.

Receiving seed

1. Seed should be stored in paper (small manilla seed packets are best but any cheap envelopes will do) and kept in a cool dark place. Some people use those small paper lolly bags and staple them at the top. Add mothballs if you like. This will prevent insect attack. I save moisture absorbers from medicine bottles and add them to my seed drawer to ensure the seeds do not rot.

Seed life varies according to species. Acacias will last for many years while Flannel Flower needs to be really fresh. Old seed may not germinate and needs to be thrown out. 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

Botanic Gardens and Reserves
Hunter Regional Botanic Gardens
Tamworth Regional Botanic Gardens
Lindum Park Flora and Fauna Reserve

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

Do you belong to a group interested in growing or conserving native flora? Why not ask them to join us?