

AN ONLINE INDEPENDENT NATIONAL PROJECT Contact: saveourflora@gmail.com Ring Maria 02 6775 1139

# **Project launched on**

# 14th November 2013

# Maria Hitchcock

Administrator **Bulletin** Editor

Membership Individuals: 174 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  $\mathbf{v}_0$ any time.

Your privacy is respected and assured with this group. You may unsubscribe at any time.

Happy Chrístmas and all the best for

2017

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Unsure if you have any rare or endangered plants? Check them out on the EPBC list http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora



### Maria writes:

Can it be December already? Time certainly flies when you are busy. Over the past year I have been more and more involved in Local Government serving on two advisory committees and being very active in local advocacy. We have been lucky in securing the services of an excellent administrator in our area and the Armidale region can look forward to a new period of local prosperity after many years of almost no growth.

In early August I travelled to the Grampians for an Acacia tour. The Grampians in Victoria are home to many rare species but are being threatened by frequent and intense bushfires. Fortunately a number of the important species are in cultivation but there are many more which are not as desirable by the home gardener and therefore end up being ignored. On the way I noticed surface water lying in paddocks and drains and this was the start of the big wet in Victoria and flooding in inland NSW and around Adelaide. It has now dried up and I hope the farmers are able to get a really good return on their crops this year.

My area experienced the best spring anyone can remember as we usually get our big rains in February/March. I planted out my backlog without needing to water as nature obliged with regular good falls. After three years of a dreadful drought it was such a change. Flowering was magnificent this year - first the Acacias then the Prostantheras and now Callistemons. Unfortunately the tap turned off soon after and we went for weeks of hot dry weather which saw me dragging hoses around the garden yet again. My dear husband gave me an early Christmas present by pressurising our low pressure supply. What a difference. The sprinkler now reaches a much greater distance making the job that much easier.

In late August in the middle of the wet period I visited the Pilliga Scrub to check out those rare species which only grow in this amazing part of our state. I didn't realise that there were two leaf forms of *Prostanthera ringens*, a narrow leaf and a broad leaf form. Both populations had purple and yellow flowering forms and seemed to be quite healthy. Fortunately they were located away from the wide fire-break put in by Santos. I still can't quite cope with the double standards when it comes to National parks. The law supposedly protects plants from being picked by individuals yet a company or the council can drive a bulldozer through without penalty. What is going on here?

Maria Hitchcock

The Christmas card on the first page featuring Ceratopetalum gummiferum (Christmas Bush) and Thysanotus tuberosus (Fringed Violet), is from a series of early Australian floral cards published by Turner & Henderson in 1880. Their first series, registered under the NSW Copyright Act on 20 November 1879 as 'Australian Floral Cards', are generally considered to have been the first published Australian Christmas cards with specifically Australian subjects. The first series were small cards printed in an oblong format around 7x14 cm in size. We know from Turner & Henderson's advertisements in the Sydney press that the series was based on paintings by Helena Forde, nee Scott (1832-1910), one of the best known of Australian-born artists and natural history illustrators in the second-half of the nineteenth century. The 1880 series were 'drawn and coloured by Miss Scott' -Harriet Scott (1830-1907) - Helena Forde's sister.

The cards are held in the Caroline Simpson Library & Research Collection, gift of Richard Clough.

http://sydneylivingmuseums.com.au/stories/bessierouses-scrap-album

Do you have a contact at a local school? Why not ask them to join Save our Flora as a group member More and more schools are establishing Endangered Species Gardens featuring rare plants from their local environment.



# Callistemon megalongensis

Megalong Valley Bottlebrush Critically endangered(NSW, EPBC) http://www.environment.nsw.gov.au/threatenedspeciesapp/ profile.aspx?id=10517

# Description:

Shrub to 4.5 m with narrow leaves (30-45 mm long). Flowers occur in a spike of around 40-50 florets, 35 mm wide, with pinkish purple stamens. Fruit is c. 5 mm long. Identification confused with locally common species *Callistemon citrinus*. Flowers from mid-November to early December although this can vary with seasonal conditions. Resprouts after fire.

## Distribution:

Known only from 8 sites within a small section of the eastern Megalong Valley in the western Blue Mountains. Occurs in shrubby swamp habitat and swampy woodland in the immediate vicinity of Nellies Glen Road, with populations extending along the associated downstream watercourses and into the fringing vegetation of Megalong Creek. Riparian populations beyond the shrub swamps are low in density. Associated species include Callistemon citrinus, *Leptospermum morrisonii, L. juniperinum, L.* polygalifolium, L. obovatum, Empodisma minus and Grevillea asplenifolia with occasional emergent Melaleuca linearifolia and Eucalyptus camphora.

# Threats:

- Small total population size,
- Small size of individual populations,
- Small area of habitat,
- Concentration of habitat within a relatively small area,
- Inadequate representation in formal conservation reserves



Callistemon megalongensis Image: http://www.nationalparks.nsw.gov.au/Conservationprograms/megalong-valley-bottlebrush-conservation-program

- Lack of fire may result in excessive weedy scrub development.
- Road upgrades and maintenance of road verges, powerlines and water mains where this species occurs can cause direct damage to plants as well as erosion, sedimentation, weed invasion and other forms of degradation to the habitat of this species.
- Weed invasion, particularly Japanese Honeysuckle and Blackberry.
- Altered swamp hydrology
- Grazing by cattle and horses.
- Horse riding and recreational vehicular use (recreational 4WDs and trail bikes) along informal tracks intersecting swamps containing this species.
- Erosion caused by pig diggings and wallows damages habitat.

Conservation:

Site managed strategy No recovery plan deemed necessary

Is anyone growing this species? Please let us know if you are.

#### E-BULLETIN NO 15

# **Callistemon forresterae**

Forrester's Bottlebrush Vulnerable (EPBC)

# National Recovery Plan - Geoff Sutter

http://www.environment.gov.au/system/files/ resources/ 5d8e4831-82b5-47e3-82b8-7f6dc5bddeee/files/ callistemon-forresterae.pdf

## Description:

Erect shrub growing up to 1.2 m high, with grey papery stems, alternate, sessile; linear to linear-lanceolate leaves with a mucro, often slightly falcate, 33-43 mm long, 3-4 mm wide, with a raised mid-vein on both surfaces, glabrous, oil glands visible on both leaf surfaces.

Flower spikes have leaf-like bracts at the tip, 9–12 cm long, 42–46 mm wide, the axis is hairy, Stamens have mauve filaments, 13–15 mm long and purple anthers. The woody capsule is c. 4–6 mm long and 5–8 mm wide.

Not to be confused with Callistemon subulatus which has crimson-coloured flowers and capsules mostly less than 5 mm wide.

# Distribution:

Forrester's Bottlebrush is known from a single population of 1-3,000 plants that occurs along the banks of the Genoa River in eastern Victoria. There are considered to be five sub-populations: three subpopulations in the Coopracambra National Park, one subpopulation in the Maramingo Forest Block within a Special Protection Zone and one sub-population on unreserved crown land at Wangarabell near Genoa. There is also a putative record from New South Wales at Imlay Creek, below the Wallagaraugh River Track, where there was a population of about 50 plants (Molyneux 1997). This record has not been substantiated, and there are doubts as to its occurrence in NSW. A proposed recovery action is to verify its occurrence in NSW. Virtually nothing is known of the habitat of Forrester's Bottlebrush, other than it occurs on rock bars or in sand over rock adjacent to streams (Molyneux 1995). A proposed recovery action is to determine habitat critical to survival of the species.



Callistemon forresterae 'Susan' (Genoa Glory TM) Image: <u>Di's Delights</u>

Threats:

- Weed invasion, especially from Blackberry Rubus fruticosus spp. Salix spp. and Rosa rubiginosa. Removal and control of willows has occurred along sections of the Genoa River adjacent to areas where C. forresterae grows.
- Domestic stock from the adjoining private property at the Wangarabell site, have access to the Genoa River, and plants are at risk from trampling or grazing
- The feral pig population is apparently increasing in the area, which could cause damage by digging and uprooting vegetation or creating wallows along the river bank, although no damage to C. forresterae has yet been observed.
- Response to fire, especially the ability to resprout after fire, is unknown. The riparian habitat in which C. forresterae occurs suggests that the species relies on a higher moisture supply regime than surrounding habitats.
- Climate change with the projected drier conditions could have an effect on C. forresterae.

This Recovery Plan guides recovery actions for Forrester's Bottlebrush and will be managed by the Victorian Department of Sustainability and Environment. The Recovery Plan will run for a maximum of five years from the date of its adoption under the EPBC Act, and will be reviewed and revised within five years of its adoption.

## ECOCHECK: VICTORIA'S FLOWER-STREWN WESTERN PLAINS COULD BE SWAMPED BY DEVELOPMENT

theconversation.com May 17, 2016 Georgia Garrard & Sarah Bekessy reprinted in Caleyi August 2016

When Europeans first saw Victoria's native grasslands in the 1830s, they were struck by the vast beauty of the landscape, as well as its productive potential. The explorer Sir Thomas Mitchell described the western Victorian plains as "an open grassy country, extending as far as we could see ... resembling a nobleman's park on a gigantic scale". His fellow pioneer John Batman, in 1835, described the grassy plains to the north and west of what is now Melbourne as "the most beautiful sheep pasturage I ever saw in my life".

The native temperate grasslands of southeastern Australia are a group of ecosystems defined mainly by the presence of dominant native grasses. Trees are either completely absent, or occur in very low numbers. In Victoria, native grasslands can be found on the volcanic plains that stretch from Melbourne as far west as Hamilton. Despite their rather plain name, native grasslands are extraordinarily diverse, containing many species of wildflowers that grow between the tussocks of grasses. It is possible to find more than 25 different plant species in a single square metre of native grassland, and the wildflowers produce dazzling displays of colour during spring.

The animals that inhabit these grasslands are equally diverse and fascinating. The striped legless lizard, grassland earless dragon and golden sun moth are three that live there today, although many others are now locally extinct. One can only imagine how impressive it would have been to see brolgas, rufous bettongs and eastern barred bandicoots roaming, nesting and digging on these plains.

Native grasslands were a significant food source for Aboriginal people. They provided both meat (kangaroos and other grazing animals were attracted to the open grassy landscapes) and vegetables. Many of the native forb plants produce energy-rich tubers or bulbs that can be eaten much like a potato. These made up a large part of the diet of Aboriginal people living in these areas. Fire is critical to maintaining the diversity and health of native grasslands, and fire regimes used by Indigenous people are an important aspect of grassland management.

The story of Victoria's native grasslands since European settlement is not a happy one. Grasslands offer extremely fertile land (by Australian standards, at least), which made them attractive for agriculture and grazing. Overgrazing by sheep and cattle, the addition of fertilisers to "improve" pastures, and changes to the frequency and extent of fires in the landscape led to a noticeable degradation of Victoria's native grasslands by the early 20th century.

Since then, habitat loss and degradation from intensive grazing, cropping and – more recently – urbanisation have reduced the native grasslands of the Victorian volcanic plain to less than 1% of their original extent (as documented in the paper titled "Vegetation of the Victorian Volcanic Plain").

Land clearing for urban development continues to pose a major threat to Victoria's native grasslands. Many remnants exist in and around Melbourne's key urban growth corridors. A 15,000-hectare grassland reserve is planned to the west of the city to offset the losses that will occur as Melbourne grows. This is an exciting prospect – such a large reserve would provide an opportunity to showcase this threatened ecosystem on a landscape-wide scale. But successful implementation of this reserve requires significant investment in restoration and management, and only time will tell whether it truly compensates for the inevitable losses elsewhere.

### Saving what remains

A major challenge for the conservation of Victoria's native grasslands is to maintain the patches that remain. These remnants, nestled in agricultural and urban landscapes, are often small and fragmented, and are subject to threats such as weed invasion and broad-scale use of herbicides and fertilisers. Without regular fires or some other form of biomass removal, the native grasses grow too big and smother the wildflowers. Over time, grasslands can lose their species diversity, and with it the intricate beauty of their varied wildflowers. On the face of it, the prognosis for these grasslands does not look great. They are certainly one of Australia's most endangered ecosystems, and their conservation must necessarily occur alongside human-dominated land uses. This brings social challenges as well as ecological ones.

Native grasslands suffer from a public relations problem. The need for regular fires is not always well aligned with objectives for human land uses. What's more, all those wildflowers only appear in season, and even then their beauty is only really evident at close quarters.

But grasslands have a few tricks up their sleeves. First, high-quality grasslands can be maintained in relatively small patches. There are some great examples around Melbourne, including the Evans Street Native Grassland, which covers just 4 hectares. But as tiny as they are, these reserves can be just as diverse as larger grassland remnants.

Second, native grasslands can be surprisingly resilient, in both urban and agricultural landscapes. A case in point is the tiny grassland at the Watergardens shopping centre northwest of Melbourne, which has been maintained despite being completely surrounded by a car park. Several high-quality grasslands in pastoral areas have been maintained for decades under grazing at low stocking rates.

Third, native grasslands represent a great opportunity to engage urban residents with nature in cities. Many beautiful remnants exist in some of Melbourne's newest suburbs. Some already benefit from the efforts of dedicated community groups, while others are still waiting to be discovered.

Grasslands in other parts of the world, such as North America's prairies or the African savannah, are viewed with romanticism and awe. In the Australian consciousness, grasslands take a back seat to the mythical outback. But the future of the grasslands of southeastern Victoria may well depend on our capacity to generate the same public profile for this truly remarkable but critically endangered ecosystem.

## ANPSA

In conjunction with Coates Wildlife Tours Specialists in Nature Tours since 1986 are offering Members and Friends an exciting Kimberley experience

## 12 DAY NATURAL HISTORY KIMBERLEY Camping TOUR

Kununurra to Broome Broome to Kununurra 11 – 22 June 2017

## **Highlights:**

Purnululu National Park,
Gibb River Road including Mornington & El Questro Stations,
Manning, Galvins,
Bell and Windjana Gorges.

Join your fellow members and enjoy a wonderful outback experience as we discover the Kimberley's unique geology; ancient limestone reef and the rich Aboriginal culture that has fascinated visitors for many years. It is home to some of Australia's most beautiful and rare bird life, diverse flora and exciting fauna.

For full tour details contact : **Nicky Zanen**, Publicity Officer, ANPSA Email nicky.zanen@hotmail.co.uk Phone: 0401975191



# Australian Network for Plant Conservaton News -

http://www.anpc.asn.au

## **Murray Wild Orchids Project**

http://murray.lls.nsw.gov.au/our-region/programsand-projects/orchid-recovery-project

This Saving our Species Partnership Grants Project between the ANPC and Murray Local Land Services (lead agency), Office of Environment and Heritage (OEH), Department of Primary Industries - Lands, Royal Botanic Gardens Victoria, Forestry Corporation of NSW, NSW National Parks and Wildlife Service, and landholders, will contribute over the next 10 years to the long-term viability of three endangered orchid species in the Murray region:

the Crimson Spider-Orchid (*Caladenia concolor*), the Sandhill Spider Orchid (*Caladenia arenaria*) and the Oaklands Diuris (*Diuris callitrophila*).

These highly threatened orchids now only occur in very small numbers in the wild, and are at considerable risk of extinction from natural events or human-induced disturbances. Activities will include weed control, propagation, reintroduction and pollinator surveys.

Orchids are among the most beautiful and mysterious of all Australian native flowering plants. These jewels of the bush are important and striking additions to local biodiversity. Australia hosts over 800 species, but many face extinction without proper management. The Wild Orchids Consortium is working together to save these species.

## Achievements

This project builds on work completed for these species already by Murray Local Land Services, OEH, and community, including:

- targeted weed control for all known populations
- fencing of key populations for strategic grazing management
- augmentation of important populations with orchid seedlings.

## **Planned** activities

Over the next ten years the project will be undertaking management activities for all three orchid species, including:

- targeted weed and pest control
- monitoring of the abundance and condition of populations of all three species
- augmentation of existing populations and the establishment of new ones
- improving knowledge of reproduction requirements through pollinator surveys (to identify the insects needed for pollination of each species).

## More information

Rhiannon Caynes Phone: 02 6051 2232 <u>rhiannon.caynes@lls.nsw.gov.au</u>

## Continuing support for the National Landcare Network

The Australian Government will invest \$2 million in the National Landcare Network over the next two years to continue its support for volunteer operations across Australia. The National Landcare Network, and peak bodies in each of the states and territories, represent Landcare groups across the country. This funding will help the network to continue its support of the important work that landcarers do, building resilient and productive landscapes and protecting our natural environment. More information is in the Minister's media release.



# Eucalypt Australia

http://www.eucalyptaustralia.org.au/

Eucalypt Australia is a grant making Charitable Trust that focuses on eucalypts, an Australian icon and a significant aspect of Australia's natural environment and biodiversity. We envisage a public inspired by and appreciative of eucalypts.

The application process for the 2016 Small Grants Program will be simplified so that grant seekers only need to submit one application form and relevant attachments. You are not required to submit an Expression of Interest.

Applications will be accepted between 9am on 14 October 2016 until 5pm on 25 November 2016 Eastern Standard Time

Funding may be applied for by an individual, group or organisation with an ABN to undertake nonprofit projects located in Australia. Please read the eligibility guidelines below to check that you are eligible for funding.

The project must:

- Align with the objects of Eucalypt Australia outlined in the Strategic Statement
- Be for a charitable purpose, for example, there must be a demonstrated need for the project that is beneficial to the community, or deemed be for the public benefit
- Eucalypt Australia must be satisfied that the nature of the project is charitable
- Be conducted within Australia

## **Eligibility:**

Funding may be applied for by any individual or organisation with an ABN.

## Grant Size:

Grants are capped at \$15,000 and are generally made for up to a 12-month period - timeframes may be flexible depending on grant seekers' needs and the approval of the Board.

The requested amount may be part of a project budget of any size- but for projects where only part of the budget is requested, the Trustees may decide to request proof that other funds have been secured before funding is released.

Vision: We envisage a public inspired by and appreciative of eucalypts

Mission: To honour and fulfil Bjarne K Dahl's wishes and legacy

**Objectives:** 

- The establishment, promotion, cultivation and conservation of eucalypts, and
- Education of the public in the establishment, cultivation, and conservation of eucalypts

To fulfill these objectives we may:

- Research, develop, undertake and participate in programs, activities, and partnerships
- Operate as a philanthropic grantmaking body

## Conservation

Projects that identify and address threats to eucalypt conservation.

## Education

Projects that raise public awareness of eucalypt cultural and conservation values.

2016-17 grant priorities

Research

- Projects that increase scientific knowledge of eucalypts.
- Priority will be given to projects that address one or more of the following:

Conservation, education, and research, of eucalypts in the following areas:

- Indigenous art and culture
- Primary school education
- Genetics and tree breeding
- Public awareness
- Climate change and fire
- Vegetation management
- Arts (visual, literature, performing)
- Other threats to eucalypts as listed in our Strategic Statement

## A'5 star' native bee hotel

## Terry Langham

Friends of the Waite Arboretum, University of Adelaide Reprinted from 'Eucalypt' No 47 Nov. 2016 (Newsletter of Australian Association of Friends of Botanic Gardens)

The Waite Arboretum was established in 1928 and is a part of the University of Adelaide's Waite Institute, home to agricultural science departments. The Arboretum is a collection of 2,300 trees. Its Native Bee Hotel is a sculptural and functional 'five star' accommodation complex for solitary native bees and is situated on the edge of the Mallee section of the Arboretum. It was designed and constructed for research, education, and biodiversity conservation.

There are approximately 500 species of native bees in South Australia and 2,500 across Australia. South Australia's native bees include Green Carpenter Bees, Reed Bees, Blue Banded Bees, Teddy Bear Bees, Leafcutter Bees, Resin Bees, Homalictus bees and Masked Bees. They range in size from less than 2 mm to 24 mm. The hotel was made using six timber logs from Arboretum trees with fallen limbs from age or storm damage. One of the logs was sawn and positioned to create an overhanging eave to provide some protection for the nesting holes and materials. A variety of holes were drilled into the other five logs, ranging from 3 to 38 mm diameter and 60 to 150 mm depth. A number of these holes form nesting 'homes' for the bees and some of the holes can have various materials placed into them, for example paper straws, bamboo, and some native grasses.

Most of the gaps between the timber logs have been tightly filled with 150 mm lengths of bamboo. A number of the larger diameter timber and bamboo nesting holes have been filled with elderberry, crocus, salvia and wheat materials to create a wider selection of habitat for the bees to reside in. In addition, rebates were cut into the top and bottom of the logs to allow placement of nesting materials, for example, dried herbaceous garden plants (raspberries, brambles, teasels and elder), soft deadwood such as banksia, mud bricks of rammed earth and various mixtures of clay and sand. In January 2015 evidence could be seen of some of the over 120 species of local native bees residing in the eight and 16 mm diameter holes.

Elements of the hotel's design and artwork include: lettering of Waite Arboretum Bee Hotel; a representation of a native bee (Blue Banded Bee, Amegilla sp); a jewel beetle (Castiarina gardnerae); the Friends of the Waite Arboretum logo, Dracaena draco; and a teapot. In August 2015 interpretative signs were installed providing information about native bees, an identification chart of six common species, plus information on the designer and maker of the hotel and the support from the Friends of the Waite Arboretum.

Waite Arboretum Curator Dr Jennifer Gardner instigated the project which was opened by Dr Katja Hogendoorn from the School of Agriculture, Food and Wine at the Waite Campus on 9 December 2014.



Waite Arboretum Bee Hotel Image: Terry Langham



### Ruth Crosson (Gladstone) writes:

I have this shrub *Hakea trineura* growing in full sun, very windy position on a rocky ridge, it has mown park grass around it, at Radar Hill upper Gondoon St. It is flowering well in August. Only gets water from rainfall. I collected the seed from Canoona, north of Marlborough. It is classed as Vulnerable since 2006. It can have up to 80 flowers on some plants. My Hakea is only about 2m tall. They can grow to 5 metres. Only get a couple of seed pods.



Hakea trineura Image: R. Crosson



**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.

> Save our Flora PowerPoint Presentation Ready to go!

# 30 slides approx 30 mins. talk

If you are interested in obtaining this presentation please email me I can send it in an email (4.3MB) or as a CD Send me a C5 stamped addressed envelope Attach 2 stamps or on a memory stick Send me a blank memory stick plus a stamped addressed envelope - 2 stamps Australian Network for Plant Conservaton News - Nov/Dec 2016 http://www.anpc.asn.au

Orchid Conservation Program fundraising project

The Royal Botanic Gardens Victoria are raising funds to conserve and re-introduce five of the most threatened Victorian orchids. *Caladenia pumila* (the Dwarf Spider-orchid) epitomises the plight of the orchids - thought to be extinct, now rediscovered and sadly down to only 2 wild plants in the world! Donations can be made towards the conservation of the Dwarf Spider-orchid and its friends <u>here</u>. 100% of all funds raised will go towards the conservation of these orchids, through propagation, pollination studies and re-introducing these plants back to the wild. All donations are tax deductable. The RBGV's Orchid Conservation Program is the most successful orchid re-introduction program in the world, and the ANPC is proud to be involved.

# <u>Australian Flora Foundation</u> -Call for Applications for Research Grants

These grants are for research into the biology and cultivation of the Australian Flora. The Foundation expects to support between two and four projects at \$5,000 - \$15,000 each per year in 2018 with possible extension into 2019. Preliminary applications (2 A4 pages) will be accepted until **15th March 2017**. Short listed applicants will be asked to submit a full application. Further details can be found here, as well as information about the Foundation and examples of grants awarded and their outcomes.

# <u>Invitation for public comment on a</u> <u>national listing assessment</u> - Eucalyptus ovata forests in Tasmania

The national Threatened Species Scientific Committee is inviting comments and submissions on a proposed listing for a nationally threatened ecological community in Tasmania under the Federal Environment Protection and Biodiversity Conservation Act (EPBC Act). The Committee is undertaking a scientific assessment on the "Tasmanian forests and woodlands dominated by black gum or Brookers gum (Eucalyptus ovata / E. brookeriana)" ecological community. It was originally nominated for listing as a nationally threatened ecological community under the name: "Eucalyptus ovata forest and woodland in Tasmania". Experts who know this community suggested it should also include the Eucalyptus brookeriana wet forests because E. ovata and E. brookeriana are closely related and very similar in their appearance. A draft assessment (within what is known as a Conservation Advice) has been completed using data and information collated from Tasmanian government agencies, CSIRO, scientific publications and other sources. It indicates the ecological community may be eligible for listing as Critically endangered. The draft advice is now available for public comment and can be downloaded from the Department of the Environment and Energy's Comment on nominations website here: The closing date for comment is 27 January 2017.

# **Restore Regenerate Revegetate:**

A Conference on Restoring Ecological Processes, Ecosystems and Landscapes in a Changing World University of New England, Armidale NSW, 5-9 February 2017 http://conferencecompany.com.au/ revegconf2017/

The sustainable management and restoration of terrestrial ecosystems has never been more important and challenging, given humankind's growing reach throughout the biosphere and resulting accelerating changes from local to global level. It has been a decade since the revegetation industry, Landcarers, mine rehabilitation experts, carbon farmers, wildlife scientists, natural resource managers, restoration ecologists, conservation biologists and social scientists met nationally to review current theory and practice in restoration science, practice and landscape repair to sustain ecosystems and services for multiple objectives.

Over five days in February 2017, you are invited to the University of New England to contribute to our joint understanding of the challenges and successes in restoration, revegetation and reintroduction in a fast-changing world, with some of Australia's and the world's leading practitioners, scientists, consultants and advisers working in this space.

## **Themed Symposia**

Our themed symposia will highlight a broad range of themes and bring together some of the most exciting and recent developments in restoration science, practice and landscape repair. We have invited keynote speakers to present state-of-the-art reviews of the following themes as a lead-in to each symposium:

Seed genetics and management Dr Linda Broadhurst, CSIRO, Canberra

Broad-acre revegetation strategies and techniques Dr David Freudenberger, Australian National University, Canberra

*Riparian restoration and revegetation* Dr Samantha Capon, Griffith University, Brisbane *Cost-effective revegetation and restoration* Mr Geoff Park, Director of Natural Decisions Pty Ltd, Ballarat

*Connectivity for biodiversity conservation in fragmented landscapes* Dr Veronica Doerr, CSIRO, Canberra

*Fauna and restoration* Professor Carla Catterall, Griffith University, Brisbane

Sustainable revegetation in a changing world: planning and design issues Associate Professor David Paton AM, University of Adelaide, Adelaide

*Revegetation for ecosystem service provision* Dr Nancy Schellhorn, CSIRO, Brisbane

Grazing management for biodiversity conservation Dr Josh Dorrough, Office of Environment and Heritage, Wyndham

*Sociology of restoration, revegetation and landscape repair* To be confirmed

Monitoring, evaluation, reporting and improvement of restoration and revegetation Professor David Lindenmayer AO, Australian National University, Canberra

*Policy drivers for restoration* Associate Professor Martine Maron, University of Queensland, Brisbane

*Restoration and Indigenous NRM* Mr Harry White, Northern Tablelands Local Land Services

## Restoration on farms

Mr Gordon Williams, Landholder, 'Eastlake', Walcha and Mr Andrew Watson, Landholder, 'Kilmarnock', Boggabri

*Open forum* – restoration, regeneration and revegetation

The Mid-conference and post-conference Field Excursions will be of great interest to landholders, practitioners and scientists.

## **Plenary Speakers:**

The last four decades of land repair in Australia: what have we learnt?

Professor Andrew Campbell, Australian Centre for International Agriculture Research, Canberra

*Ecosystem restoration: recent advances in theory and practice* Professor Tom Jones, USDA Forage and Range Research Laboratory, Logan, Utah, USA

A changing climate, considerations for future restoration projects To be confirmed

Pollination services in restoration – comparing intact and degraded communities provides assembly rules for restoring cleared landscapes Professor Caroline Gross, University of New England, Armidale

Restoration ecology and biodiversity conservation Professor Kingsley Dixon, Curtin University, Perth

Restoring species rich and functionally complex grassy communities – feasible or fiction? Dr Paul Gibson Roy, Greening Australia, Sydney

Having your cake and eating it, too: rangeland restoration and ecosystem services Professor Joel Brown, New Mexico State University, Las Cruces, New Mexico, USA

Restoration of forest ecosystems on private land in New Zealand: opportunities and constraints Professor David Norton, Canterbury University, Christchurch, New Zealand

National standards for the practice of ecological restoration in Australia Dr Tein McDonald, Society for Ecological Restoration Australasia

Where to from here? Challenges for restoration and revegetation in a fast-changing world Professor Richard Hobbs, University of Western Australia, Perth

# 3rd Australian Mangrove and Saltmarsh Network Conference

Hobart, 21-24 March 2017

## 'Coastal frontiers: saltmarsh and mangroves'

CSIRO and the University of Tasmania are proud to host the 3rd Australian Mangrove and Saltmarsh Network Conference (AMSN). The conference brings together researchers, industry, community and environmental consultants to discuss the latest science and management for saltmarsh and mangrove ecosystems. The conference involves two days of presentation with the following broad themes: The first line of defence in global change – saltmarshes and mangroves; and Working with nature: science and community management of our coastal wetlands for healthy waterways.

The conference involves two days of presentation with the following broad themes:

Day 1 (21 March): The first line of defence in global change – saltmarshes and mangroves

Day 2 (22 March): Working with nature: science and community management of our coastal wetlands for healthy waterways

Plus visit the fabulous saltmarshes of Bruny Island and Barilla Bay in southern Tasmania.

For details and registration go to:

http://www.utas.edu.au/land-food/geography-andspatial-sciences/amsn-conference-2017

# Banksia Woodlands recognised as threatened

Mary Gray Reprinted from Wildflower Society of WA Newsletter, November, 2016

Both the Wildflower Society and the Urban Bushland Council welcome the recent federal listing of the Banksia Woodlands of the Swan Coastal Plain as a Threatened Ecological Community (TEC) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The Hon Josh Frydenberg MP as Minister for the Environment and Energy decided on the listing at the level of 'endangered', effective from 16 September 2016, on the advice of the Threatened Species Scientific Committee and after public submissions and advice from public and expert consultation.

The approved listing and Conservation Advice provides detailed information about the description and assessment of the ecological community, its threats and priority actions for research and recovery. It is available at http://www.environment.gov.au/cgi-bin/sprat/ public/sprat.pl

This Advice is very comprehensive, but clear and concise. It is recommended reading as it gives an excellent template for decision-making and management of our truly 'rich and rare' Banksia Woodlands. If Society members are liaising with your local state or federal MPs about local flora and vegetation on the Swan Coastal Plain, it is worth having a printed copy with you so that you can refer to relevant sections for insisting on appropriate conservation actions.

The Banksia Woodlands ecological community occurs mainly on Bassendean and Spearwood sands, occasionally on Quindalup sands, and on sands of the Ridge Hill Shelf, Whicher Scarp, and Dandaragan Plateau. It must include at least one of the four Banksia trees: Banksia attenuata (candlestick banksia, slender banksia), B. menziesii (Firewood banksia), B. prionotes (acorn banksia), or B. ilicifolia (holly-leaved banksia).

The flora species richness is in the understorey, and there is an average of 50 species of flora per 100 square metre (ie per 10m x 10m quadrat) which is very high (and very variable) compared with other parts of the world. Ten of the 40 mammal species in theregion are now extinct, and others have decreased greatly with many locally extinct. Bird species are dominated by Honeyeaters which are important pollinators, and the much loved 3 species of black cockatoos which are the most iconic bird species of the region. The ecological community is exceptionally rich in reptile species and also macroinvertebrates but the latter are not well known. The Conservation Advice gives summary information of what is known about this fauna.

The Swan Coastal Plain is rich also in fungi species. There have been no comprehensive surveys over the region, although there is some data collected in the Perth Urban Bushland Fungi project intitiated by the Urban Bushland Council, and in which many Society members took part.

Referrals needed: The Conservation Advice gives details of the 'condition thresholds' which will trigger the EPBC Act if development is proposed in the Banksia Woodlands ecological community. Proponents are required to refer such proposals to the federal Department of the Environment and Energy for assessment under the EPBC Act.

Buffer zones: Notably, activities likely to have a significant impact in buffer zones around patches are referable under the Act. The recommended minimum buffer zone is 20–50 metres from the outer edge of a patch. Awareness of this is much needed.

Corridors and linkages: Isolated patches need protection and need to be linked to others as priority actions for example along road reserves. Actions which remove linkages in a fragmented landscape should also be avoided.

Already listed TECs at state and federal levels remain recognised and their legal status remains in place. Existing federally listed ecological communities are to be assessed under their respective EPBC Act listings. The extent of the Banksia Woodlands ecological community estimated to be protected in reserves is only 24.32%. So it is vitally important that the federal government steps in to act to prevent further loss and destruction of Banksia Woodlands. This will obviously need co-operation from state government agencies, developers and local governments to ensure all proposals are referred under the EPBC Act.



# 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 <u>saveourflora@gmail.com</u>

#### Maria Hitchcock

16 Hitchcock Lane Armidale NSW 2350 Correa eburnea Correa calycina Callistemon pungens Grevillea wilkinsonii Zieria adenodonta Zieria prostrata Zieria floydii

#### Arthur Baker

55 Moran ST Gatton Qld 4343 Gardenia psidiodes Grevillea quadricauda Grevillea glossadenia Eucryphia wilkiei Graptophyllum ilicifolium Xanthostemon formosus Phaius tancarvilleae Plectranthus nitidus Zieria prostrata Grevillea mollis? Eremophila nivea Dodonaea rupicola Xanthostemon arenaris X verticulutus/seeds or cuttings Kunzea flavescens K graniticola Callistemon pearsonii 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 <u>saveourflora@gmail.com</u>) 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

## **Requesting and sending seed by post**

Please follow these simple steps.

#### Make a request

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

### Send seed

 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**

 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

 Send your request by email first. It will be forwarded to the grower so you can request cuttings and ask for the address.
 Purchase an Express Post small satchel for \$10.55. it will hold up to 500 gms.

 Self address your satchel and place it in an envelope with your cuttings request. Add a label/s with the name of the species and sender. Pencil is best for writing on labels.
 Post the envelope.

#### Send cuttings

- 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.
- 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**

 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 Armidale NSW Mole Station 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