



Eucalyptus parramattensis
(Calgaroo)

CALGAROO

Volume 44, No 2, February 2017

Newsletter of the
Parramatta and Hills District Group,
Australian Plants Society NSW Ltd
ABN 87 002 680 408

Our Annual General Meeting

This will be held for the first time at our February meeting that will occur on Saturday, 25 February 2017, at 2pm. This change arises from a variation of the NSW Company Law that eases requirements on small companies such as the Australian Plants Society NSW Ltd and has resulted in our Company's year becoming the calendar year.

Of course as usual reports will be presented by the Committee representing the President whom we have not had during the past year, the Treasurer and the Leader of the Propagation Group. Then all official positions will be declared vacant and a new Committee elected. We sincerely thank the retiring Committee members whose joint contribution to our Group exceeds 100 years of Committee service.

We do invite members other than those on the 2016 Committee to offer their services so that we may have a full committee during 2017. You don't need to be an expert with native plants but someone who is keen and able to contribute with management skills and has ideas as to how we can rebuild the numbership of our Group and Society.

Our AGM will start right on 2pm to allow full time for our General Meeting which will follow. On this occasion Ms Judy Horton will speak on the topic Trivet Gully to Rainforest. Judy is well remembered as the voice of Yates Seeds in the past but she has now retired with a vast amount of valuable gardening knowledge. She introduces herself:-



"I was originally a primary schoolteacher but as I learnt more about plants and gardening, I became so obsessed that I applied to study horticulture at Sydney's Ryde TAFE college. In order to get into the course I took a part time job in a local nursery. I then moved on to another nursery and, at the same time, started working for the NSW National Trust as a bush regenerator. This set me off on my lifetime's ambition to rid my property of Sydney's ubiquitous weed, privet. Although I never made a conscious decision to leave teaching, which I'd loved, opportunities in horticulture kept presenting themselves. In 1992, I signed up for a two month contract at Yates. And I was there until I recently retired."

Ed. Judy does lead some botanically themed boutique cruises and small groups for Botanica World Discoveries.

Our Retiring Committee

You see the names and contact details of our Committee each month on the back page of *Calgaroo* if you want to look. The retiring Committee has served since the last AGM that was held in November 2015. This Committee has not had a formal leader – a President, nor has it had a Vice-President nor a Secretary. But they have managed to provide leadership through their readiness to step into the breach as necessary to do whatever was required. They have happily shared the load!

Most may be prepared to stand for reelection but it is in the interests of the Group that from time to time new blood be injected and I'm sure all the retiring Committee would be delighted to have some new Committee members.



Parramatta & Hills District Group, APS

Contact us at info@apsparrahills.org.au
or visit <http://www.apsparrahills.org.au/>
or contact a Committee person directly

Calendar

Feb 2017

Thu 4 Deadline for *Calgaroo* news / articles

Wed 8 Propagation at Bidjiwong Community Nursery at 10am

Sat 25 Our Meeting at Gumnut Hall, Gumnut Place, Cherrybrook at 2pm. We begin with our AGM and then our speaker will be Judy Horton on *Privet Gully to Rainforest*.

Sat 25 APS NSW Gathering at Menai

Mar 2017

Sat 4 Deadline for *Calgaroo* news / articles

Wed 8 Propagation at Bidjiwong Community Nursery at 10am

Our Fees

Please note that the Membership fees for APS NSW Ltd rose as from 1 January 2017. The new fees for 12 months membership, including GST, are:-

Individual \$58pa; Individual Concession \$48pa; Joint \$66; Joint Concession \$56.

Note - Joint membership applies to 2 people at the same address. Each receives a membership card. A concession is available to Seniors, people on a limited fixed income and full-time students. You may choose now to pay in advance for three years should you wish.

What do we Like? Have our Tastes Changed over the Years?

With a little more time to contemplate the future I began to think of the plants we tend to discuss and presumably grow more often now and those that caught our fancy 30 – 40 years ago.

I thought of the large hybrid *Grevilleas* and multitude of cultivars – selected forms of the species, that probably interest us most today rather than the species from which these are derived. And while thinking of *Proteaceae* I decided *Banksia* and *Hakea* were not quite as popular as they were in earlier days. I can't recall an *Isopogon*, a *Petrophile*, a *Persoonia* or a *Lambertia* – other plants in the same family, appearing recently on the Specimen Table at our meetings.

Perhaps we believe we know all we need to know about *Acacia* and *Eucalyptus* trees, many species of which are so familiar to us. Unfortunately many, particularly the *Eucalypts*, are too large for our dwindling gardens – houses are larger and blocks are smaller. But there are some small *Acacias* worthy of consideration. There are other species in the Family *Myrtaceae* some of which are certainly worthy of a place in any garden – I refer to *Melaleuca*, *Callistemon*, *Kunzea* and *Leptospermum*.

Boronia were the pearl years ago, the desire of every native gardener to have in their garden. Still magical but we recognised other species are hardier in our Sydney gardens and grow *Boronia* less frequently. But there were other *Rutaceae*. Everyone grew *Eriostemon myoporoides* and many of us several other species of *Eriostemon* - probably many still do, but the name change to *Philotheca* for these species seems to have left us considering other plants first. Indeed it seemed strange to hear someone refer to *Eriostemon australis* (it was not reclassified) recently when a few years ago we were all trying to establish it in our gardens when the evidence showed that it rarely succeeded in cultivation. Of course we all grew *Correa* and undoubtedly still do yet I rarely see it on the Specimen Table or hear of it doing nicely in someones' garden.

And I wondered if many of us are still growing species of *Westringia* and its close relation *Prostanthera*. They provide a wonderful splash of colour in Spring and a strong, clean smell in our gardens. We rarely see a Tree Fern or a more modest Fern or indeed a Cycad at our meetings yet I'm sure members are growing and enjoying them. And there is rarely a mention of a daisy or other low growing or prostrate shrub.

I have but referred "to the tip of the iceberg". Our Australian plants are numerous, unique and just waiting to be planted in your garden. Perhaps tastes have changed, they generally do

I trust that we simply haven't seen or heard what members are growing. Perhaps it is because we are preoccupied with wider issues, issues of emissions that must be controlled if mankind is to live a healthy life in reasonable weather conditions, issues that are under discussion at international level, confronting nations seeking action on the world stage.

Assisted Colonisation as a Climate Change Adaptation Strategy

*Dr Nola Hancock

Assisted colonisation (also known as assisted migration, managed relocation or benign introduction) is the intentional movement of species beyond their native range, and has been proposed as a climate change adaptation tool for biodiversity conservation. It is generally accepted that unless species can tolerate new climatic conditions in situ, via phenotypic plasticity or evolution, they will need to disperse / migrate or risk becoming locally extinct. Barriers, both natural and fabricated, create problems for those species that need to move to more suitable climates; unless they are moved by us they may perish.

Identifying which species, communities and ecosystems may benefit most from assisted colonisation in the coming decades is a key goal for conservation. Despite this urgency, assisted colonisation is still hotly debated in the literature but the climate is already changing, species are moving and the pressure on at-risk species is increasing. Globally, the practice of assisted colonisation is limited and hence, few examples exist from which to guide practitioners.

To assist biodiversity conservation under climate change, a comprehensive literature review that concentrates on the theoretical aspects of assisted colonisation has been prepared for the NSW Office of the Environment and Heritage. The report details a series of scenarios that may predispose terrestrial species to the need for assisted colonisation in order to reduce extinction risk resulting from anthropogenic climate change, and includes a list of traits commonly associated with at-risk species. These traits may help to provide broad-scale guidance on how to select species to target for assisted colonization.

Six key themes were identified that are associated with successful conservation translocations including recipient site selection and preparation, a clear understanding of species biology and ecology, and taking lessons from invasive species research. The report also includes examples of global policies and guidelines with reference to assisted colonisation as a response to climate change for biological conservation purposes and a compilation of established flora translocations in Australia (not including forestry literature).

The report can be found at: <http://www.climatechange.environment.nsw.gov.au/Adapting-to-climate-change/Adaptation-Research-Hub/Biodiversity-Node> , Gallagher, R.V., Hancock, N., Makinson, R.O. & Hogbin, T. (2014). Assisted colonisation as a climate change adaptation tool. Report to the Biodiversity Hub of the NSW Office of Environment & Heritage, or the abridged version:

Gallagher, R.V., Makinson, R.O., Hogbin, P.M., Hancock, N., 2015, Assisted colonisation as a climate change adaptation tool , *Austral Ecology*, 40 (1), pp. 12-20

In conjunction with this report, an online survey of participants in flora translocations and/or flora conservation in Australia was conducted. Using the results of our survey, we investigated the gap between theoretical and conceptual ideas about assisted colonization, and gauged preparedness for its implementation.

We found that the majority of respondents think that assisted colonisation is very important because of its ability to preserve species that are predicted to have no other means of avoiding extinction. However, the practice of assisted colonisation is not readily accepted. Increases in and/or restoration of habitat connectivity and the mitigation of proximal threats are preferred over actions that move species beyond their current range.

The survey results can be found at: Hancock, N., & Gallagher, R. (2014). How ready are we to move species threatened from climate change? Insights into the assisted colonisation debate from Australia. *Austral Ecology*, 39(7), 830-838.

***Dr Nola Hancock** is a member of the Dept of Biological Sciences, Macquarie University. Her article first appeared in *Research Matters*, Newsletter of the Australian Flora Foundation in June 2015. To access data available from the AFF visit [http://www.aff.org.au/AFF3 Newsletters.htm](http://www.aff.org.au/AFF3_Newsletters.htm)

Ed. Clearly the question as to how our floral diversity is maintained under projected climate change is on the minds of many professionals as I'm sure it is on the minds of many members of APS. It is good to know that the professionals have been addressing the matter positively already rather than later.

12th FJC Rogers Seminar

The organising Committee for the **12th FJC Rogers Seminar** have advised that it will be held on 20-21 October 2018, the topic being **Goodeniaceae**. **FJC Rogers Seminars** are a Premier event for APS Victoria.

The Wimmera Growers of Australian Plants are combining with APS Grampians Group to hold the 12th Seminar in memory of the late Fred Rogers. It will be held in Western Victoria at a venue to be advised.

Around the Groups -- Nomadic Orchid

The orchid shown here was the subject of a brief article in the APS Nowra Group newsletter last December. Peter Mair reports that "It was originally purchased at an Open Garden function at Peter Olde's some 5/6 years ago, in a 'tube' and has since, grown-on in successively larger pots at Cambewarra, moved to Bomaderry and then deposited at the rear of the Berry Primary School Nursery, where it has decided to flower. The flower spike is approx. 1 metre high. Given a helping hand in identification by Laurie, it seems to be a *Phaius australis* and is native to the area around Noosa Heads".

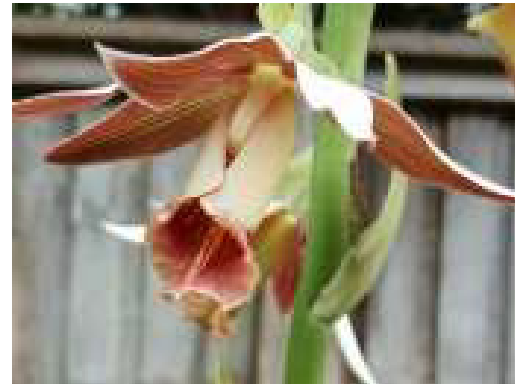
Editor Ken Smith adds: "Propagation can occur from planting the seeds; or from flower stem node propagation where cut sections can stand in a container of water; or go onto sphagnum moss where roots can be encouraged to develop from the nodes". Gwen *Phaius australis* grows in areas where soils are almost always damp, often found in coastal habitats between swamps and forests. This includes swampy sclerophyll forest dominated by melaleucas or fringing open forest and melaleuca swamp forest associated with other rainforest species. They often grow in deep shade, but can also occur in full sun. This species occurs at higher altitudes in northern Queensland. (Barker 1995)

Ed. This seems a remarkable orchid and although it may not be ideally suited to our conditions I wonder if any member of our Group has dared to try it. If you have please tell us how it has fared.

I confess to not knowing much about orchids and I would be delighted to receive articles from members who do grow them suggesting what species others might try in our area. Do you feed them? Presumably you need to ensure they don't dry out? Do you need to give them any other special treatment?

Remember – it is by sharing our experiences that we and others learn.

***Phaius australis* (Images : Peter Mair)**



Our Problems are not Unique

These words were the words Tony Maxwell used in an email to Committee members recently when he forwarded two papers identified by the APS Board. Briefly the first paper tells of the demise of the British Iris Society, a world renowned gardening society, and other gardening societies. The second is a response from a member. Indeed the first paper begins, "This is the first of a two-part series on the decline of plant societies and garden clubs. Tomorrow, [Scott Beuerlein](http://gardenrant.com/2016/12/dying-on-the-vine-part-i.html) explains how to dig out of the hole." Scott insists the end is not nigh. His message is, "Gardeners join together." The first paper is by Allen Bush.

You may read these papers at <http://gardenrant.com/2016/12/dying-on-the-vine-part-i.html> and at http://gardenrant.com/?guest_post=dying-on-the-vine-part-ii.html

Scott begins, "So picture this. You're young. You've got a spouse. You both work. Two kids. Homework. Soccer. Swimming. Band. Two cars and a house. Somewhere in the cracks you find an interest in gardening, but you know little about it. You think joining a garden club or a plant society might help you along. Plus, you can use an occasional fun night out. So you go to a meeting. It's in some church basement."

"After an hour of a treasurer's report, old business, new business, and one codger arguing with another codger over some stupid little detail in the minutes, you eat cake off a paper plate balanced on your knee and drink a Dixie cup of Hi-C. Driving home, how do you feel?"

I trust this is not a picture of us but let us keep it in mind. Let us welcome newcomers with relevant info and a smile. Our Aussie native plants are worthy of our best.

ANPS(A) Study Groups

It is disappointing to see that there are no less than 13 ANPS(A) Study Groups currently in recess, generally for lack of a leader. Several of those Groups had one dedicated leader for many years before he/she found it necessary to retire and unfortunately no one has come forward to take their place. Undoubtedly it takes one's time to be an effective leader and, of course, knowledge of the subject – Family or Genus.

Is there anyone interested in such a role? If so have a talk to Wendy Grimm who is the APS NSW Study Group Liaison Officer. Wendy has a page in *Native Plants for NSW* where all Study Group details are also given.

A great way to learn more about your favourite plants is to join one or more Study Groups. There is an annual fee set by each Group (presently varying from free to \$14 by email). You don't have to be knowledgeable, just interested. Some are stronger in certain States, others balanced across Australia.

Calothamnus villosus and *C. quadrifidus*



Above: *Calothamnus villosus*

I enjoy the opportunity to scan the newsletters of other APS Groups and I suggest there is a worthwhile comment below. It is from Pam Tippett of the APS South-West Group where Sarah Cains is newsletter editor. Pam writes:

"The *Calothamnus villosus* is growing very well if in a somewhat leggy, untidy fashion. It is in a position that lets the light fall on the fine hairs covering the leaves which gives a lovely backlit glowing effect to the whole bush. It flowers continuously and I've been cautious about pruning it but some members of the Group have pruned theirs hard with success. When I next checked the bush I noticed that where I had tentatively pruned in a couple of places there were in fact new shoots which has given me encouragement that I can reduce its size without killing it."

C. villosus which grows along the South Coast of WA, reaches about 2m x 2m and has green/grey leaves that are covered by fine hairs. Those I have grown have looked grey.

Another *Calothamnus* that is more frequently seen is *C. quadrifidus* which has eight subspecies. The subspecies have green/grey leaves of different length and/or width most of which are flat while a few are cylindrical. These shrubs reach about 2.5m x 2.5m.

There are more than 40 species of *Calothamnus*, all of which are found in WA. They are within the family Myrtaceae and are also known as One Sided Bottlebrushes.

The above species prefer a sunny or part sunny site in well drained soils. They respond to hard pruning (as Pam has discovered) and will tolerate extended dry periods once established. Propagation from seeds or cuttings is easy.



Below: *Calothamnus quadrifidus*

Pam also mentions some other plants that were in flower. These included *Chorizema cordatum*, *Eriostemon australasius*, *Goodia lotifolia*, *Grevillea* 'Poorinda Peter', *Grevillea sericea*, *Hypercalymma angustifolia* and *Kunzea baxteri*. All these are worth considering planting in gardens in our area too.

See this Group newsletter and others on the APS NSW web site at <http://austplants.com.au/>

Earth's Hottest Year in Recorded History

As the effects of climate change gathered speed, 2016 brought record low sea ice coverage in the Arctic during the start of the northern winter, monthly temperature records smashed one after the other and the worst coral-bleaching event in history.

The result is that all this is likely to culminate in the year just gone being officially declared Earth's warmest ever recorded.

According to media reports, United States scientists will soon confirm that 2016 was the hottest since records began in 1880. In fact they now have.

Ground Covers

It has occurred to me that I have given **Ground Covers** little space in *Calgaroo* for some time and yet these plants generally play a significant role as fillers between larger species and over rocky ground where it is difficult to grow a larger plant.

My first thought was to seek lists of ground covers on the Internet and of course there they were. Indeed the first list was that of **Angus Stewart** and you may care to see that for yourself by visiting <http://www.gardeningwithangus.com.au/anguss-top-ten-australian-groundcovers/>

Another list was provided by **All Natives Online Nursery** from Northern NSW whose business is obviously conducted on-line. Their list was much more comprehensive numbering some 70 (subject to a counting error) and included plants not listed by Angus Stewart. Visit them at <http://www.allnatives.com.au/ground-covers>

I confess some are new to me but I believe all can be grown in our area providing their normal requirements such as water and drainage and the degree of sun received are adhered to.

It was my intention to print the lists but as the vast majority of members can access the lists on-line why take a lot of space needlessly. Any Parramatta & Hills District Group member desiring a printed list should phone me on 8096 5530.

A few examples of newer cultivars are offered below. Check their details on-line or in your



Scaevola albida
'Mauve Carpet'



Goodenia ovata
'Gold Cover'



Melaleuca hypericifolia
'Ulladulla Beacon'



Adenanthos cuneatus
'Coral Carpet'



Grevillea 'Aussie Crawl'



Kennedia coccinea

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.

Saudi Arabia to Launch US\$30-50 Billion Renewable Energy Program

* David Twomey

Saudi Arabia's Energy Minister Khalid al-Falih has said the country will launch in coming weeks a renewable energy program that is expected to involve investment of between US\$30 billion and US\$50bn by 2023.

Mr Falih, speaking at an energy industry event in Abu Dhabi, said Riyadh would in the next few weeks start the first round of bidding for projects under the program, which would produce 10 gigawatt (GW) of power.

In addition to that program, Riyadh is in the early stages of feasibility and design studies for its first two commercial nuclear reactors, which will total 2.8GW, he said. "There will be significant investment in nuclear energy," Mr Falih said.

Under an economic reform program launched last year, Saudi Arabia is seeking to use non-oil means to generate much of its additional future energy needs, to avoid running down oil resources which are required to generate foreign exchange through exports.

Mr Falih said Saudi Arabia was working on ways to connect its renewable energy projects with Yemen, Jordan and Egypt. "We will connect to Africa to exchange non-fossil sources of energy," he said, without elaborating.

Its finances strained by low oil prices, Riyadh wants to conduct many of its future infrastructure projects through partnerships in which private companies from within the kingdom and abroad would bear much of the cost and risk.

* David Twomey is the editor of *EcoNews* in which this story first appeared.

Ed. It seems remarkable that a nation having the oil reserves of Saudi Arabia would spend so much money on renewable energy. They must be convinced that the rest of the world really is committed to the use of renewables to minimise dangerous emissions and avoid excessive temperature rises.

Section of a Letter Shirley Pipitone President, Open Gardens Canberra

What does Open Gardens Canberra have to do with the Australian Flora Foundation? First of all, I have been a supporter of the AFF for many years, and secondly Open Gardens Canberra has a subtle sustainability focus. At the very least that means Open Gardens Canberra will promote gardens displaying more of the plants best suited to their environment in garden designs best suited to their environment. Most importantly, Australia needs AFF research to continue to expand our knowledge of Australian flora, whether for garden use, commercial purposes or simply to understand them better.

Since the closure of Open Gardens Australia, two other community organisations have also been established to continue opening gardens around Australia: Open Gardens South Australia (<http://opengardensa.org.au/>) and Open Gardens Victoria (<http://www.opengardensvictoria.org.au/>). Visit AFF at <http://www.aff.org.au/>

February APS Gathering at Menai

The next APS NSW quarterly Gathering is on Saturday 25 Feb 2017 and is being hosted by the Menai Wildflower Group. They will be meeting at the Illawong Rural Fire Station (IRFS), Old Illawarra Road, Illawong

Lloyd Hedges from Menai Group will be talking about the Pink Flannel flower (*Actinotus forsythii*) and the trials taking place in an attempt to bring this spectacular but seldom seen native plant to a wider audience.

Ed. Unfortunately we had planned and completed arrangements for our meeting, including the AGM, before the date of the Gathering was confirmed. With regret your Committee feels we are committed to this date and so our meeting will proceed. No doubt a record of the meeting will be published to enable us to learn of decisions taken at the Gathering.

The Hills Council Living Sustainably Walks and Workshops

The following **Living Sustainably** program is planned at the **Community Environment Centre**, Annangrove Park, Currie Avenue, Off Annangrove Road, Annangrove or as otherwise advised.

Rain Garden - Thursday 16th Feb 10.00am to 11.30am

Water sensitive urban design in your garden. This presentation covers effective and helpful garden design principles and includes the construction of a rain garden.

Water Wise - Thursday 23rd Feb 10.00am to 1.00pm

A comprehensive look at soil and mulch types, plant selection, water flow, watering systems and heaps more in your garden. Permaculture principles will be introduced.

Solar battery storage - Thursday 2nd March 10.00am to 11.00am

Want to know if solar battery storage is the right answer? This workshop examines the current and alternating state of play in this emerging energy storage dilemma.

Vertical Garden - Thursday 9th March 10.00am to 12 noon

Learn about the benefits of vertical gardens and green walls, especially in saving water and cooling properties. Creative solutions for people with limited space and budgets.

Cattai Creek bush walk - Saturday 11th March 9.30am to 11.30am

Stroll along the upper course of Cattai Creek. Enjoy the bush scenery in this conservation area and discover the issues involved with protecting an urban creek. Medium Grade

Bookings are essential. Book Walks and Workshops on-line at: www.thehillsenvironment.eventbrite.com.au

Reptile Handler List (Published by NSW Office of Environment and Heritage)

Area licensed to operate in	Licensee name	Contact number
Sydney Metro	Lyn Levy	0417 232 662
Sydney Metro	Rob Ambrose	0401866429
Sydney Metro	Sean Cade	0410761575
Sydney Metro	Harley Jones	478957688
Sydney North	Jason Dimunno	0404 951 194
Sydney Area	Terry Behman	1300 149 549

Should you find an unwelcome visitor such as a snake or lizard in your home or garden the above Reptile Handlers are licensed to help you. Keep a copy of this list near the phone just in case.

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We suggest P&H members who need to renew their membership complete the form in the centre of *Native Plants for NSW* and post it to Pip Gibian at her address above or choose the direct deposit option, follow the directions carefully and advise Merle Thompson and Gordon Brooks by email. Alternatively just pay Pip at the next meeting. Please ask if you are unsure of your membership status which is shown on the address label affixed to APS publications received quarterly. Note the new fees that are effective from 1 January 2017 on Page 2 and the fact that you may now renew for three years.