



Eucalyptus parramattensis
(Calgaroo)

CALGAROO

Volume 45, No 2, February 2018

Newsletter of the

**Parramatta and Hills District Group
Australian Plants Society NSW Ltd**

ABN 87 002 680 408

This Month's Meeting on Saturday, 24 Feb 2018, at 2pm

We will commence the afternoon sharp at 2pm with our **regular bimonthly meeting** after which we will hold our **Annual General Meeting** which includes the Committee's Report, followed by the Treasurer's Report and the Propagation Officer's Report. A motion to include an Editor, FaceBook will be put by the Committee. The election of the Committee for 2018 follows. These AGM matters do not normally take much time to complete but we do need to start on time to ensure we finish on time.

At our bimonthly meeting on 24 February 2018 we are delighted to have Narelle Happ as our guest speaker. Her talk is titled *Bush Tucker Gardens*. Narelle is a horticulturist and garden designer, with a special interest in edible native plants. She has loads of knowledge and practical advice on this group of plants, because she grows them in her garden and regularly uses them in her family meals. She knows which plants will grow well in Sydney, how to care for them and how to use them in the kitchen. She will have specimens to show and maybe a few to sell at the meeting. Narelle has delighted several other Groups with her presentation - don't miss it!

APS NSW - Special General Meeting and Quarterly Gathering

The next APS NSW Quarterly Gathering will be hosted by the APS Sutherland Group at the Loftus Community Centre Hall, 119-129 Loftus Ave, Loftus, on Saturday, 3 March 2018. The hall is opposite Loftus Railway Station, next to the fire station.

Prior to the Quarterly Gathering program a Special General Meeting will be held to consider proposed changes to the Articles of Association. Members have received notification about this.

The day's program is:

10.00 – 11.30am Guided tours around the beautiful Joseph Banks Native Plants Reserve, Manooka Place, via Alpita Street, Kareela. The Sutherland Shire Council has upgraded the facilities and constructed more than two kilometres of walking paths and other facilities. The APS Sutherland Group has planted new native plants to enhance the newly developed areas. It is a delightfully relaxing area in which to enjoy a picnic lunch before travelling onto the Loftus Community Hall, 15 minutes away by car, for the Gathering.

11.30am – 12.45pm Lunch. There are plenty of places to buy lunch and enjoy a coffee at nearby Sutherland, or bring a picnic lunch to eat at either Joseph Banks Native Plant Reserve or the Loftus Community Hall grounds.

12.45 – 3.30pm Gathering, Loftus Community Hall

The Special General meeting is not expected to exceed 45 minutes and thereafter the Gathering activity will be 'How to Create a Wildlife Habitat at Home' presented by Geoff Doret, Greenweb Officer at Sutherland Shire Council.



Parramatta & Hills District Group, APS

Contact us at info@apsparrahills.org.au

or visit <http://www.apsparrahills.org.au/>

or contact a Committee person direct

or join us on Facebook at

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

Calendar

February

- Sun 4 Deadline for *Calgaroo* news / articles
 Wed 14 Propagation at Bidjiwong Community Nursery at 10am
 Sat 24 Our meeting at Gumnut Hall, Gumnut Place, Cherrybrook at 2pm. The Speaker will be Narelle Happ whose topic will be *Bush Tucker Gardens*. And we hold our AGM.

March

- Sat 3 APS NSW Ltd Quarterly Gathering at Loftus hosted by APS Sutherland Group from 10.30am
 Sun 4 Deadline for *Calgaroo* news / articles
 Wed 14 Propagation at Bidjiwong Community Nursery at 10am - 12 noon
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Our AGM

Following the presentation of reports, your Committee has proposed that now we have pages in Facebook we should appoint an Editor, FaceBook. Therefore it is moved and seconded by the Committee that the Rules of this Group be amended by the inclusion of the position of "Editor, FaceBook" in Rule 3 such that it shall read:

"3. The business of the Group shall be managed by the Committee consisting of the President, two Vice-Presidents, Immediate Past President, Secretary, Treasurer, Delegate to the Company's Council, Editor of the Group's journal "*Calgaroo*", **Editor of the Group's "FaceBook" pages**, Public Relations Officer, Conservation Officer, Propagation Officer, Librarian and such other Committee persons as the Annual General Meeting may elect providing the number of the additional Committee persons does not exceed one for each 15 members."

When the above resolution has been resolved, the positions of each Office Bearer shall be declared vacant and an election of officers for 2018 shall occur. Nominations from any member will be welcome.

The Offices to be filled and the current holder are:

President	Vacant
Vice-Presidents (2)	Vacant
Secretary	Vacant
Treasurer & Membership Offr	Pip Gibian
Immediate Past President	Tony Maxwell
Publicity	Ben Turco
Conservation	Daniel McDonald
<i>Calgaroo</i> Editor	Gordon Brooks (Unwilling to stand again)
FaceBook Editor	Subject to the carriage of the above resolution
Delegate to the APS Council	Tony Maxwell
Propagation Officer	Lesley Waite
Librarian	Sue Gibbons
Committee Persons (one per each 15 members)	Marilyn Cross Jann Mulholland

Death of Gloria Brooks

It is advised that long time member Gloria Brooks passed away peacefully aged 90 years at Wesley Gardens Aged Care Facility on Sunday, 4 February 2018. A service of Thanksgiving will be held on Monday, 19 February at Wesley Uniting Church, Showground Road, Castle Hill at 2pm. All friends welcome.

The Quandong - a Bush Tucker Food

One prized Bush Tucker fruit is the Quandong. Sometimes called a 'native peach', Quandongs grow in Australia's semi-arid regions and were prized by Indigenous Australians not only for the tart flesh but also the medicinal properties of its leaves and nuts. High in vitamin C, the fruit can be made into a range of foods including pies, sauces and jams. The nut can also be roasted and ground to make flour.

There are several species of wild fruit which are be called a Quandong, the Desert or Sweet Quandong, the Bitter Quandong, the Blue Quandong, the Bitter Quandong (a second one) or Sandalwood,

***Santalum acuminatum*, the Desert Quandong**, is a hemiparasitic plant in the Sandalwood family Santalaceae, widely dispersed throughout the central deserts and southern areas of Australia. Occurrence of the plant is recorded in all the mainland States except the Northern Territory. It is widespread in western NSW, eastwards to Dubbo and Culcairn.

The plant was known to many different indigenous language groups, and is therefore known by many different names. It grows as a tall shrub, or small tree, 4 to 6 m high and 2–4 m wide. The rough bark is dark grey and the branches ascending in character. Flowers can be green or white on the outer parts, reddish or brown on the inner faces, these appear on stems, are just 2 – 3 mm across, and are fragrant. Fruit is produced after four years and is red or sometimes yellow, measuring 20 and 25 mm across. A 3 mm layer of flesh covers a brain-like nut with a hard shell that encases the seed. This fruit is referred to as a drupe, it ripens from green to a shiny red in late spring or summer, and is globe shaped and 20 – 40 mm across. The skin of the fruit is waxy

The **Bitter Quandong *Santalum murrayanum***, occurs roughly south of a line from Kalgoorlie (WA) to Bourke (NSW), with most collections from southern SA and northern Victoria. Over its range it is found in a number of habitats, though in some it shows a marked preference for heavy sandy loams over crumbly limestone.

The Bitter Quandong is a handsome weeping tree to 5m in height (juveniles can be shrubby), with attractive hanging soft veil like foliage. The leaves have a hooked tip and can be found growing in pairs or in whorls of three on the same plant, the latter being a good identification feature.

This tree flowers from late Spring into Summer and fruits (2 cm dia) are of similar size to the Desert Quandong, *Santalum acuminatum*, but mature to a green/yellow or a dull mustard/orange colour, instead of shining bright red. Also the epicarp (seed) is less pitted than the Desert Quandong, although this can be quite variable and is not so good for identification as the foliage differences.



***Santalum acuminatum*
- Desert Quandong**
Image: Australian Botanic Gardens
<https://www.anbg.gov.au/>



***Santalum murrayanum* -- Bitter Quandong**
Image: Esperance Native Plants
(Obviously trees are not in typical condition)

The **Blue Quandong** is a member of a related genus, *Elaeocarpus grandis*, and is a fast growing rainforest tree bearing distinctive blue edible fruits. The Blue Quandong has a large buttressed trunk with vertically flat visible roots which are as much a feature as the actual tree.

This species is a tall, upright tree reaching about 50 metres with a spreading canopy. It is well regarded for its timber and as a key in regenerating rainforest. It is best suited to a subtropical climate as it prefers moist growing conditions. However it likes full sun. It flowers from March to June. Its fruits are up to 3cm diameter and eaten whole by cassowaries, woompoo pigeon and spectacled flying foxes, which pass the nut undamaged. The seed has deep convolutions in its shell

Flowers, fruit, foliage and shape make this an ideal tree for large gardens or parks.

Santalum lanceolatum is another tree of the family Santalaceae. It is commonly known as Desert Quandong, Northern Sandalwood, True Sandalwood and in some restricted areas as Burdardu. The height of this plant is variable, from 1 to 7 metres. The flowers are green, white, and cream; appearing between January and October.

This tree extends from north-western Victoria, northwards through NSW to North Queensland, westwards across the Northern Territory and into North Western WA. It is a plant primarily of semi-arid inland areas although its distribution reaches the coast in both Central Queensland and the Kimberleys. The tree

is becoming increasingly rare across much of its desert range due to destructive browsing by feral camels. The plant is used by the people of the northwest for medicinal purposes.

Some authors exclude *S. lanceolatum* from the Quandong group while others refer to several more Quandong species but clearly these four are the generally agreed ones.

For more detailed information google Quandong – there is lots of info available



***Elaeocarpus grandis* - Blue Quandong**
Image: Daley Fruit Tree Nursery

Living Sustainably == The Hills Council Walks and Workshops Series

SKETCHING

Wednesday, 14 February | 10am—1pm

Enhance your ability to create an accurate illustration by learning the basic skills of sketching. Add to your artistic portfolio.

GARDEN VARIETY

Thursday, 22 February | 10am—11.30am

Discover the wide variety of options available to construct garden beds – no dig, vertical, spiral, small-space, raised, swale, wicking and more.

NATURAL FERTILISERS

Thursday, 1 March | 10am—1pm

Learn about the plants and minerals to boost soil fertility and plant growth. Explore the techniques for making organic fertilisers for your garden.

STREAM WATCH

Thursday, 8 March | 10am—11.30am

Acquire valuable water quality monitoring skills. Help protect your local creeks and streams and get involved in hands-on Citizen Science.

These FREE workshops are available to all residents of The Hills. Places are limited and bookings are essential, visit: www.thehillsenvironment.eventbrite.com.au

Check location when you visit on-line to book.

Collectors' Plant Fair 2018

The organisers claim that this year's event will be the biggest ever with many more nurseries participating and record crowds attending.

Tickets are on sale now for Collectors' Plant Fair 2018 at the Hawkesbury Race Club, Clarendon, on April 7 & 8. Saturday entry - \$14, Sunday entry - \$12, Weekend pass - \$20

They are planning a swag of new special feature events at Collectors 2018, including workshops, growers' talks, and an exclusive picnic lunch by special guest chef.

You may keep in touch via www.collectorsplantfair.com.au

UNSW signs world first deal to go fully solar powered *David Twomey

The **University of NSW** has signed an agreement to become fully solar powered in a world first deal of its kind.

As a result of the deal UNSW has a 15-year agreement with solar company Maoneng Australia and energy company Origin for a solar corporate power purchase agreement (PPA).

The agreement will see solar energy from Maoneng's Sunraysia solar farm provide 100 per cent of the campus' energy.

Sunraysia, which will be constructed near Balranald in New South Wales, will be the largest solar farm in Australia, generating at least 530,000-megawatt hours of electricity annually.

UNSW will purchase 124,000-megawatt hours, or close to a quarter, of all electricity generated from Sunraysia.

A three-year retail firming contract, to provide additional power if solar energy generation is low, was also signed with Origin.

This is an excerpt from an Eco news item prepared by David Twomey, Editor.

Ed. This is a significant step towards a cleaner world for both us and our plants.

Xylella fastidiosa

*Bill Aitchison

Pentachondra is the journal of the **Australasian Plant Society in the UK**. In the most recent December 2017 issue, there was a reference to *Xylella fastidiosa*. It was noted that this is a bacterium that is currently considered to be one of the biggest threats to UK horticulture and the wider landscape. It is native to the Americas where it affects many crops including citrus, coffee and grapes. It has yet to reach the UK, but in 2013 it was found to be killing olive trees in Italy and has since spread to France, Germany and Spain.

The Pentachondra article noted that one thing that makes *Xylella* so worrying is that not only is it known to have an extensive host range, but also it is thought that even more plants could turn out to be susceptible. Thus far it has been detected in 350 species from 75 plant families (though some don't show disease symptoms). It was noted that some species that can be infected include *Acacia dealbata*, *Dodonaea viscosa* and *Grevillea juniperina*.

Xylella is referred to on the website of the Australian Government's Department of Agriculture and Water Resources (<http://www.agriculture.gov.au/pests-diseasesweeds/plant/xylella>).

The following is an extract from the website: "Xylella is an invasive bacterial plant pathogen that causes significant environmental and economic impacts. Many commercial and ornamental plant species can be killed by this bacterial pathogen.

Xylella is spreading around the world, and although it is not present in Australia, it is of major concern to Australia's Plant Industries.

*From the ANPSA Acacia Study Group newsletter by Leader Bill Aitchison of APS Victoria.

How to Grow Fresh Air

"My daughter gave me the book titled **"How to Grow Fresh Air, 50 Houseplants that Purify Your Home or Office"**, by Dr B.C. Wolverton in 1996. He worked in collaboration with NASA, which is great, except for the book being in the hands of Penguin and based in London. So it's not applicable without further study, to apply to Aussie plants.

There is even a section on **How Plants Purify the Air**. Some of the ones I recognize are: Gerbera Daisy, Dwarf Date Palm, Rubber Plant, English Ivy, Weeping Fig, Peace Lily, Dendrobium Orchid, Dumb Cane, Parlour Palm, Dwarf Azalea, Spider Plant, Elephant Ear, Philodendron, Wax Begonia, Prayer Plant, Poinsettia, Cyclamen, and Aloe Vera.

And did you know that houseplants emit water vapour? That must be good, when it gets so dry."

So wrote Chris Coe in response to a brief item in *Calgaroo* last month.

It is good to remember that plants take in carbon dioxide and emit oxygen, improving the quality of the air for us. Some are more effective than others as Dr Wolverton says in his book and Chris has named some that he mentions. And as Chris records, there are Aussie plants that are also effective. If you are able to grow some indoor plants, your home will benefit.

And plants do emit water vapour from their leaves and, of course, from the soil in which they grow. But as they emit water vapour so these plants and the soil in which they grow dry out. So be sure you provide the water they need regularly to keep them in good condition to "grow" fresh air and to purify it and delight with their appearance..

As it happens only a little more than a year ago Chris reminded me that we hadn't had an article about indoor plants and I listed nine plants for indoor use for the very purpose of providing clean air. Here they are, but look back to our November 2016 issue to see the images of these. Of course they grow in tubs or large pots inside.

Black Bean Tree (*Castanospermum australe*)

With dark glossy leaves, these trees bloom red and yellow pea-like flowers in the summer. However, the green seeds in the black bean pods are poisonous.

Broad-leaved Palm Lily (*Cordyline petiolaris*)

This native plant grows in the understory of Australian rainforests. They're very hardy, with a beautiful palm-like foliage.

Kentia Palm (*Howea forsteriana*)

Native to Lord Howe Island, Kentia Palms thrive next to the coast, but can grow indoors in any climate.

Cordyline Narrow-leaved Palm Lily (*Cordyline stricta*)

This shrub is found in rainforests across Australia; however it is also drought tolerant and likes the shade, easily making it a low-maintenance indoor plant.

Davidson's Plum (*Davidsonia pruriens*)

This striking specimen grows purple fruits, which are edible and are especially delicious if they're turned into jam! New growth is spectacular for a time.

Rough Maidenhair Fern (*Adiantum hispidulum*) With beautiful pink hues, rough maidenhair ferns are perfect for hanging baskets and indoor growing.

Native Ginger (*Alpinia caerulea*)

This hardy plant had many functions for indigenous Australians. The ginger-tasting root would be eaten, along with the flesh from the fruit. The leaves were also used to wrap food for cooking and to thatch roofs.

Pink Rock Orchid (*Dendrobium kingianum*)

This orchid grows in open forests along the East Coast of Australia as a lithophyte (growing on rocks) or rarely as an epiphyte (growing on another living plant). It does require light to flower

Small leaved Lilly Pilly (*Syzygium luehmannii*)

These evergreen plants are found in Australia's rainforests and vary in size. Most grow delicate green or white flowers in Spring and early Summer. They carry colourful small fruits.

Note that some of these can grow too large eventually for indoors use and must be moved outside.

Trees – the 10 Best Street Trees and the 10 Best Garden Trees

Having prepared the article on the previous page I forwarded it for comment to Chris Coe who had initiated the matter. Then she offered the following suggestion.

"Let's ask members to offer their list of the ten best street trees and another list of house garden trees. As you know most of the power outages come from ignorance of, or no guidance from, the Council or other bodies about tree height, mainly, not to mention blocked drains from tree roots. So again more information is needed for the public about planting appropriate trees away from houses, drains and electrical power lines."

I don't believe we should blame any Council for I'm sure there are guidelines available and that they have been publicised from time to time. The problem is that we don't think about safety as often as we should.

Have you thought about the safety of the trees you have planted?

Can any member offer a list of street trees and/or garden trees that are generally safe to plant and to enjoy for their leafiness and/or their flowers? Please develop your list; we will check Lists from Councils later.

Thank you, Chris, for the great idea.

Flora of Australia Launch

<https://www.ala.org.au/blogs-news/flora-of-australia-launch/> November 27, 2017

The much anticipated new digital platform *Flora of Australia* was launched today by project partners the Department of the Environment and Energy (specifically the Australian Biological Resources Study, ABRS), the Council of Heads of Australasian Herbaria (CHAH) and the Atlas of Living Australia (ALA) as part of the Systematics 2017 conference at The University of Adelaide.

Flora of Australia is a synthesis of taxonomic knowledge of the country's flora and represents a momentous collaborative effort among taxonomists in Australia and New Zealand. It is designed for anyone wanting authoritative information on the names, characteristics, distribution and habitat of Australian plants.

The new digital platform integrates a wide range of botanical information such as nomenclature, distribution maps, images, biodiversity data, and identification keys, sourced from the National Species List, 'Australia's Virtual Herbarium, Keybase, Australian Plant Image Index, and the Atlas of Living Australia (ALA).

Flora of Australia is the leading authoritative source for Australia's plant biodiversity information. It is an essential resource for plant identification, and provides vital information that underpins decision making for national and international biodiversity conservation, threatened species and biosecurity management activities.

For many decades, *Flora of Australia* was produced as a hard copy book series. It required considerable time and resources to produce and was often out of date by the time it went to print.

ABRS, CHAH and the ALA understood the benefits of moving *Flora of Australia* to a digital platform and the ALA provided the digital infrastructure, hosting requirements and technical expertise necessary to make it happen. The ALA was launched in 2007 as part of the Australian Government's National Collaborative Infrastructure Strategy (NCRIS) and within 10 years has become a world-leader in digital biodiversity infrastructure.

The *Flora of Australia* digital platform enables direct contributions online, faster publication of biodiversity information, greater collaboration, and open access to data. The information is now more accessible, more user-friendly, easier to navigate through the classification, and can be updated more rapidly. It also includes innovative features such as an ability to filter the national *Flora of Australia* coverage to targeted geographic areas.

Flora of Australia dynamically links a range of Australian biodiversity informatics resources to help deliver robust scientific information about Australia's native and naturalised plants. Approximately 14 000 taxon profiles are now available in *Flora of Australia*, including treatments previously published in the hard copy series. Nearly 500 new taxon profiles have been added in draft form (not publicly accessible) and will be progressively published.

This project assists Australia to meet Target 1 of the Global Strategy for Plant Conservation (GSPC), 'An online flora of all known plants'. Data from *Flora of Australia* will be gradually contributed to the **World Flora Online**.

The launch was hosted by Dr Judy West, Assistant Secretary, Parks Island and Biodiversity Science, Department of the Environment and Energy. **For more information visit *Flora of Australia* online at www.ausflora.org.au or contact Anthony Whalen, General Manager, ARBS, at ALA info@ala.org.au or anthony.whelen@environment.gov.au**

Ed. I acknowledge this was copied from *Caley*, newsletter of the APS Northern Beaches Group. I consider this a very important step in recognising and identifying our Australian native plants and commend their Editor Jane Marsh for being aware of the event and recording it for APS NSW members.

What are We Planting?

Living in an Aged Care Facility and having no garden I wonder what members are planting in their gardens. It would help to know so that the Editor, Calgaroo knows what would be helpful to write about. Wondering I opened my copy of ***Native Plants of the Sydney Region*** by Alan Fairley and Philip Moore. And it opened at the **Family Rutaceae**, a favourite of mine. This Family includes the *Asterolasia*, *Boronia*, *Correa*, *Crowea*, *Eriostemon*, *Phebalium*, *Philothea*, and several other less well known genera.

From 1975 for the next 30 years many members brought specimen of these to our meetings during the Spring flowering season. But I have no idea whether members are still growing these. Probably Pip Gibian, Jean and Alan Wright, and Lesley Waite do but beyond them I can only guess.

Boronia are not easy to grow but a lovely local species that should be tried is ***B. pinnata***. It certainly grows in local bush.

Another may be ***B. mollis***, which is possibly the earliest species to flower each year. It is a variable shrub which may grow to about 3 m high and 1.5 m wide in its natural habitat. It occurs naturally around our area.

These and other *Boronia* are normally grown from cuttings as seed is difficult to collect and unreliable. When planted out they require some moisture but well drained soil in semishade.



***Boronia pinnata* Image: Brian Walters**

Western species of *Boronia* are generally difficult in our gardens and it is recommended that you learn to manage eastern species first.

Correa are well known bells native to Australia. There are about 11 species but 26 sub -species. Natural hybridisation between the species makes taxonomic relationships within this genus problematic. There are also many named cultivars, many of which have been registered with the Australian Cultivar Registration. They vary in size and colour. .

And *Eriostemon*, *Phebalium*, *Philothea* and *Zieria* are other well known genera from which to choose a species for your garden.

But what else?

Of course most of us think of genera such as *Acacia*, *Banksia*, *Bauera*, *Callistemon*, *Darwinia*, *Epacris*, *Goodenia*, *Grevillea*, *Hakea*, *Hibbertia*, *Melaleuca*, *Olearia*, *Pimelea*, *Prostanthera*, *Pultenaea*, *Scaevola*, *Tetratheca* and *Westringia* to fill our gardens.

This is far from a complete list and even omits some erstwhile favourites. But do YOU have species of these genera? And the next question is, what else do you have in your garden unless it is fern or an orchid?

Please let us know so that **relevant articles** may be prepared or sourced from another place by your new editor.. Let us know what topics will help..