



*Eucalyptus parramattensis*  
(Calgaroo)

# Calgaroo

Volume 44, No 8, August 2017

Newsletter of the  
**Parramatta and Hills District Group,  
Australian Plants Society NSW Ltd**

ABN 87 002 680 408

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## National Wattle Day

The first day of September is National Wattle Day. It builds on a long unofficial tradition of wearing the wattle blossom on 1 September.

The day was introduced in 1913 by an association called the Wattle Day League and formally recognised on 23 June 1992. Australians can celebrate their floral heritage by planting wattles.

Australia's national floral emblem is the golden wattle (*Acacia pycnantha* Benth.). It has been used in the design of Australian stamps and many awards in our honours system. A single wattle flower is the emblem of the Order of Australia. The golden wattle is an evergreen, spreading shrub or small tree. It grows in the under storey of open forest, woodland and in open scrub in South Australia, Victoria, New South Wales and the Australian Capital Territory. When in flower, the golden wattle displays the national colours, green and gold. As one species of a large genus of flora growing across Australia, the golden wattle is a symbol of unity.

Wattle is ideally suited to withstand our country's droughts, winds and bushfires. The resilience of wattle represents the spirit of the Australian people.

We acknowledge the role of Maria Hitchcock in achieving the formal recognition of Wattle Day.

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## Our Next Meeting

Sharon Bowen will speak on the subject *Wetlands* at our next meeting. This will be held on Saturday, 26 August at 2pm at Gumnut Hall, Gumnut Place, Cherrybrook.

Not surprisingly we have rarely considered plants of a wetland but many wetlands have distinctive plants which are adapted to the wetting and drying cycles of wetlands. The types of plants found in a wetland depend on:

- whether a wetland has mostly fresh, saline or brackish water;
- surface and underground drainage;
- frequency of inundation;
- other factors such as soil, temperature, rainfall and topography.

Some coastal wetlands have plants adapted to estuarine conditions, such as mangroves and seagrasses. Others have freshwater plants such as paperbarks, reeds and sedges. Inland floodplain wetlands are often in low rainfall areas and have a few hardy eucalypts such as river red gum, coolabah and black box, which can tolerate years of drought or low river flows.

Wetlands are not rainforests although possibly there are some similarities. So, we have much to learn and to consider from Sharon.



**Parramatta & Hills District Group, APS**

Contact us at [info@apsparrahills.org.au](mailto:info@apsparrahills.org.au)

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

contact a Committee person direct

or join us on Facebook at

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

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## Calendar

### Aug 2017

- Thu 3 Deadline for *Calgaroo* news / articles  
 Wed 9 Propagation at Bidjiwong Community Nursery at 10am  
 Sat 26 Our meeting at Gumnut Hall, Gumnut Place, Cherrybrook at 2pm. Speaker will be Sharon Bowen whose topic will be *Wetlands*  
 Sun 27 Orange Blossom Festival's Zest Fest at Bella Vista Farm – we are selling plants; help wanted with cut flowers, bunching, setting up our stall, and manning it all day from 10am to 7pm

### September

- Sun 3 Deadline for *Calgaroo* news / articles  
 Wed 13 Propagation at Bidjiwong Community Nursery at 10am  
 Sat 23 Our meeting at Gumnut Hall, Gumnut Place, Cherrybrook at 2pm. Speaker will be Greg Bourke whose topic will be *Australian Carnivorous Plants*.

## Orange Blossom Festival Market (part of Zest Fest)

This year there will not be a fete at Samuel Gilbert Primary School. Instead we have secured a stall at the Orange Blossom Festival market. It will be on **Sunday 27<sup>th</sup> August, at Bella Vista Farm, entrance on Elizabeth Macarthur Drive (turn off Norwest Boulevard). The stall will run from 10am to 7pm.** This is much longer than the hours we spend at the fete. So PLEASE, WE NEED ALL HANDS ON DECK to be able to man the stall for 9 hours.

As usual we will sell the Propagation Group's plants and bunches of cut flowers from members' gardens. As the market is the day after our meeting in the afternoon of Saturday, 26<sup>th</sup> August, we will have to bunch the flowers on Saturday morning. The plan is to meet in Gumnut Hall at 10.30am, to bunch the flowers. Members should bring secateurs and if you wish, morning tea and lunch. I think many of us will simply have a cut lunch and stay for the meeting in the afternoon. The bunching takes some time, so the more hands the better. It is a very pleasant activity, with lots of beautiful flowers and the best company, all working together. No skill with flowers is needed. They are so beautiful, it hardly matters how they are bunched.

**We will be asking members to give us an idea when they can help on the stall. A few of us will be going early with the plants and flowers, to set up. So far Marilyn and I are happy to be there for the late hours. We will need a rough timetable to ensure that all the intervening hours are covered. Don't feel worried about whether you have enough knowledge to sell our plants and answer questions. There will be lists of the plants taken with details of size and shape, and other helpful lists, eg what will grow in the shade, which species will tolerate wet or very dry conditions etc. This is a great opportunity to have maximum exposure to the general public, instead of just a single school population.**

### Cut-flower Preservation Recipe

We remind any Member able to assist with flowers for bunching for the Orange Blossom Festival's Zest Fest to take them to Gumnut Hall on the morning of Saturday, 26 August 2017, at 10.30am or soon after.

If you can, it would be appreciated if when you cut the flowers at home they be immediately put into a preservation solution, the recipe for which was given to us by the late Eric Rymer many years ago. Make it up and use it later in your own home after cutting blooms for yourself. The flowers will retain that "just picked" look for longer. If you can't, please bring them to the Hall anyway where they will be put into preservative.

**If you can, please bring them in a 10 litre bucket marked with your name half filled with water to which you have added two (2) cups (500 ml) of the following.**

- Dissolve 400 gm Sugar in 1400 ml of boiling water
- Add 20 gm of Citric Acid powder (1 tea sp) – this can be bought from the spice section of most Supermarkets
- Add 200 ml of household grade Disinfectant
- Top up to make two (2) litres – use an old fruit juice plastic bottle.



Last Year's Potted Colour

**Your help will be greatly appreciated and will reduce the time to complete the work at Gumnut Hall.**

**Mount Annan Plantbank Visit, 27 July 2017**

About a dozen members and friends visited the Mt Annan Plantbank on Thurs 27. It was a beautiful day – cool and crisp with hardly a cloud in the sky. We were met by our guide at the Plantbank entrance and proceeded on our tour of the working areas of the facility.

The general aim of the Plantbank is to preserve and study the seeds of all 6000 plus plants in NSW and the 25,000 plus plant species in Australia. Staff mount gathering trips periodically to bring in seed from different species. Samples are usually representative of the plants in the wild rather than just the best specimens. Most are dry land plants where the seed can be preserved fairly easily. The active part of the seed is separated from the surrounding chaff, it is then dried at 15°C and 15% humidity, then sealed in metal foil packets and stored in the vault at -5°C. For most species this will maintain the ability to germinate for many decades up to hundreds of years. Not all of the sample is stored at Mt Annan – parts are forwarded to other plantbanks around the world. Mt Annan’s major partner in this process is the Millenium Seedbank at Kew Gardens in the UK.

Wet area plants and rainforest plants are not as easy to handle. The seeds are often larger with more flesh and require specialised techniques to preserve them. Plant tissues and seeds are prepared in special bottles and then stored in the vapour from liquid nitrogen at -196°C. This process preserves them almost indefinitely.

The Plantbank building is an excellent facility and cost \$20 million to build. It has been going for some years now and will take another 20-30 years to accumulate all the species of interest – it has plenty of capacity to accommodate this. As existing samples age there will also be the need to replace them periodically. The Plantbank also has a nursery to check seed viability in a practical way and this also provides specimens for the Botanic Garden and various ecological experiments.

Our group really enjoyed our visit – it was stimulating and inspiring to see the work under way.



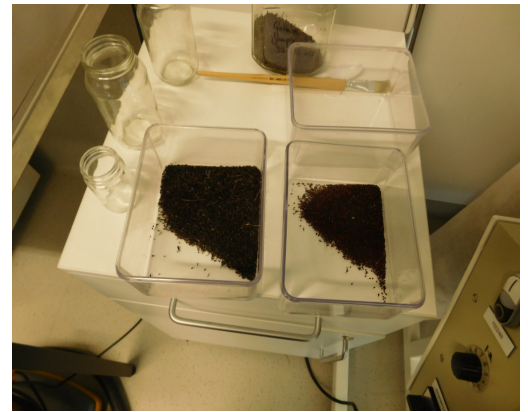
**Left**  
**The entrance to the PlantBank**



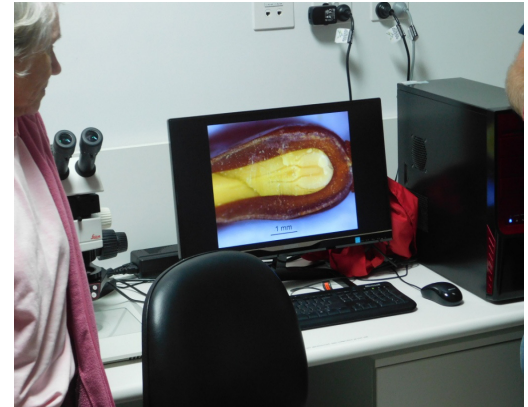
**Right**  
**Meeting our Guide**



**Left & Right  
Views of the Seed  
Processing Room**



**Left  
View of the Seed  
Vault**



**Right  
View of an X-ray in  
the Micrology Room  
of a seed to ensure  
it is viable**



**Left & Right  
Views of the Tissue  
Culture Room**



**Left  
The Diversity Wall  
which displays a  
range of plants in  
various ecological  
areas**



**Right  
A display of a  
Rainforest area**

The APS Macarthur Group visited the PlantBank only three weeks earlier and there is a detailed report from a different approach to be found in their newsletter. It, and those of other Groups, are accessible to our members at the temporary APS NSW web site <http://www.aps.wildapricot.org/> and soon it will revert to our old web site <http://austplants.com.au> after domain re-delegation. We will advise you when this occurs.

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## Indoor Plants

Chris Coe has asked some questions about **Indoor Plants**. I thank her for her query.

Chris asks can the small plants become invasive? How long do they take to get too big to be kept indoors? Can they be transferred to the garden successfully when the time comes?

Now I am no expert on any plant, particularly **Indoor Plants** but an on-line search has provided the following.

### Top Ten Native Plants to purify the air

Plants don't just absorb carbon dioxide, they keep many other toxins out of the air too!

We need air. It's simple. But as important as it is, surpassing all other requirements for life, we often forget the necessity of plant life to give us quality, fresh air. And promoting native plants in your home or office is a great way to not only improve our health and well-being, but also to improve the livelihood of Australia's biodiversity.

Plants are one of the simplest and most effective ways to clean the air. As part of a clean air study in 1989 NASA released their first list of air filtering plants. NASA researchers suggest having at least one plant per 100 square feet of home or office space for the best results in air purification. Not only can plants produce Oxygen from CO<sub>2</sub>, some plants are also able to absorb toxins like benzene, formaldehyde and/or trichloroethylene.

The ANPSA web site carries an FAQ response by Brian Walters who writes:

Most container-grown plants can be taken indoors for short periods (1-2 weeks) and can provide excellent decoration when in flower. As well, there are a number of Australian plants which can tolerate indoor conditions for extended periods. These are usually those species native to tropical and sub-tropical rainforests where the plants have become accustomed to low light levels. Some worth trying include *Schefflera actinophylla* (umbrella tree), *Castanospermum australe* (black bean), *Davidsonia pruriens* (Davidson's plum), various Lilly Pillies (*Syzygium*, *Acmena*, *Waterhousea*) and *Grevillea robusta* (silky oak). *Cordyline* species grow well indoors and in air conditioned areas. Although these are flowering plants, they are unlikely to flower if kept indoors for extended periods so selection should be based on their foliage characteristics.

Among the non-flowering plants, ferns make excellent indoor plants especially hardy ones such as *Doodia aspera* (rasp fern) and *Nephrolepis cordifolia* (fishbone fern). Even tree ferns (*Dicksonia antarctica* and *Cyathea* sp.) can be used for several years before their trunks develop. Cycads, such as *Macrozamia communis* (Burrawang) are also excellent indoors as is the small conifer *Ptherosphaera fitzgeraldii* (syn. *Microstrobos fitzgeraldii*).

A good reference for choosing and maintaining Australian plants indoors is *Growing Native Plants Indoors* by John Wrigley and Murray Fagg, 1992 (published by Simon and Schuster).

Of course we have not answered Chris' questions, rather we have discovered what species, and this will not be a complete list, we may try in our homes.

However we are told that "most container plants may be taken indoors for short periods". In the early stages, try your plants inside for a week but be prepared to take them out if they show early signs of distress. One option is to have two of the same species – one inside but another outside that you can interchange. Remember, this means extra work!

And ferns will not mind the lower light level but will be subject to the drying effect of an airconditioner. Indeed, remember with an airconditioner most if not all your plants will need additional water.

Chris asks, "Can small plants become invasive?" I have not seen a response to this question but I suggest that they are unlikely to have the same opportunity as most will be in their own pot, rarely planted together. In any case the indoor plants are unlikely to possess the strength that a plant growing in the sun or part-sun will have. And therefore they will be less invasive than they would be outside.

"How long do they take to get too big to be kept indoors?" This is surely difficult to answer as some are naturally larger than others and some rooms will be suited to larger plants than others. For example, I believe a *Grevillea robusta* that grows into a tall tree must surely be ready for a suitable outside spot before a lilly pilli and that before a fern. I doubt a definitive response is possible given that light levels are likely to vary room to room.

Her next question was: "Can they be transferred to the garden successfully when the time comes?" The potted plant may have been growing in a potting mix best suited to indoor conditions so every aid may be needed to successfully transfer the plant into the garden. Its root system may have become tangled or have been trimmed and it may need a larger prepared hole to allow the root space to expand, nutrients to encourage growth which was previously not strongly desired, staking to support it in the external winds and some temporary shading to

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minimise the sudden subjection to sun. And additional water to replace that which a plant with a more developed root system may have been able to take from drier ground.

Finally, Chris is worried that some plants may produce seed that when they are transferred outside may become a nuisance. She comments that "there are quite a few plants listed in *Growing Native Plants Indoors* that would become a pest when outside." I suggest there are two options – don't use them inside in the first place or dispose of them when they become too big rather than planting out in the garden. If necessary cut the thicker wood with a saw and use the lighter material as mulch. Chris mentions blocks of timber but I doubt any one will retain a tree inside that long. I can't imagine an indoor plant with a trunk greater than about 5cm diameter.

As I have said, I have no experience with indoor plants so I would welcome the views of members who know much more than I. I'm happy to receive an article expanding on my efforts.

Here are the ten native Aussie flora that will look good and purify the air in your home or office:

#### **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.

#### **Coraline narrow-leaved palm lily (*Coraline 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.

#### **Davidsons plum (*Davidsonia pruriens*)**

This striking specimen has grows purple fruits, which are edible and are especially delicious if they're turned into jam!

#### **Walking stick palm (*Linospadix monostachya*)**

Walking stick palms are small, slow growing plants that are native to Australia's rainforest understory, with edible orange fruit.

#### **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.

#### **Native orchid (*Dendrobium kingianum*)**

These orchids will brighten up your house or office, with more than 50 species native to Australia.

#### **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.

Ed. This was from a site at <http://www.1millionwomen.com.au/our-movement/> which is promoting action by women re climate change. You may see the site by clicking on their URL.

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## **So Much Plastic**

According to a new cradle-to-grave global study, industry has made more than 8.3 billion tonnes of plastic since 1950 and enough is left over to bury Manhattan under more than three kilometres of rubbish. That is about one tonne of plastic for every living man, woman and child on Earth. Unfortunately plastics do not break down like other man-made materials so three-quarters of the stuff ends up as waste in landfills, littered on land and floating in oceans, lakes and rivers, according to the research reported in journal *Science Advances*.

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## Study: just 100 companies responsible for 71% of global emissions

\*David Twomey

According to a new report just 100 companies have been the source of more than 70 per cent of the world's greenhouse gas emissions since 1988. The [Carbon Majors Report](#) "pinpoints how a relatively small set of fossil fuel producers may hold the key to systemic change on carbon emissions," according to Pedro Faria, technical director at environmental non-profit CDP, which published the report in collaboration with the Climate Accountability Institute.

Britain's Guardian newspaper reports traditionally, large-scale greenhouse gas emissions data is collected at a national level but this report focuses on fossil fuel producers. Compiled from a database of publicly available emissions figures, it is intended as the first in a series of publications to highlight the role companies and their investors could play in tackling climate change.

The report found that more than half of global industrial emissions since 1988, the year the Intergovernmental Panel on Climate Change (IPCC) was established, can be traced to just 25 corporate and state-owned entities. The scale of historical emissions associated with these fossil fuel producers is large enough to have contributed significantly to climate change, according to the report.

ExxonMobil, Shell, BP and Chevron are identified as among the highest emitting investor-owned companies since 1988.

If fossil fuels continue to be extracted at the same rate over the next 28 years as they were between 1988 and 2017, said the report, global average temperatures would be on course to rise by four degrees Celsius by the end of the century.

**This is likely to have catastrophic consequences including substantial species extinction and global food scarcity risks.**

\*David Twomey is Editor of the daily Eco News.

Ed. Let's hope emissions are reduced quickly for the benefit of our grandchildren and great-grandchildren.

## More on Eucalypts



***Eucalyptus macrocarpa* has the largest gumnut of all the Eucalypts** Image: Alice Newton

This image is taken from the newsletter of the Friends of Burrendong Botanic Garden and Arboretum to which members of our Group travelled on two or three occasions about 30 years ago to assist in its development. APS Sutherland Group contributed more and some others may have helped too.

If you are in the area spend some time at Burrendong which is near Wellington.

*Eucalyptus macrocarpa* is a very distinctive species having a mallee-type habit of growth and spectacular red flowers. There are two recognised subspecies, this being the more common ssp *macrocarpa* which is up to 4m tall. The other is ssp *elachantha* which has a restricted occurrence south east of Geraldton. It has smaller leaves and lower stature.

The foliage attracts almost as much attention as the flowers which may be up to 100mm in diameter. These are red although pink-red forms are occasionally seen from early-spring to mid-summer. The gumnuts which follow the flowers are very large and have a grey powdery covering.

It comes from a dry area in WA and unfortunately cannot be regarded as reliable in our sub-tropical climate. However it has been seen growing and flowering in Western Sydney. As it develops from a lignotuber it should respond to hard pruning. Propagation is from seed which germinates readily. Why not give it a go?

The image above by Mrs Alice Newton, Chairperson of the Friends of Burrendong..

## Top End Native Plant Society

You will surely enjoy a look at the newsletters of the Top End Native Plant Society with colourful plants that in many cases you will not have seen before. Below are just six. Have you seen these before? To see more visit <http://www.topendnativeplants.org.au/> or look to your personal reference books.



*Grevillea refracta*



*Utricularia triflora*



*Byblis liniflora*



*Grevillea goodii*



*Crotalaria novae-hollandiae*



*Austrodolichos  
errabundas*

Of course these species would be expected to be difficult to grow in our climate.

## The Effects of Climate Change on our Plants

As many of us did not go to the meeting arranged by APS Blue Mountains Group, I have chosen to copy one paragraph of the report in the APS Sutherland Group newsletter. Peter Shelton who is editor of this newsletter, says:

"The second talk by Dr Paul Rymer was on research involving PhD students on climate change and its effects on plant populations and if there will be localised extinctions and movement of populations or if perhaps there can be some adaptation and enhanced resilience. Ordinary citizens can become involved in this project by going to the website PEAS Tracker."

It is indeed a Citizen Science Program run under the auspices of Western Sydney University. It is named PEAS Tracker because researchers know all about the importance of legumes as nitrogen-fixing species in an agricultural context, but we don't know much about Australian legumes as they grow in their native bush or the interactions and food webs of which they are part. In this program we are seeking answers.

To discover more about this program visit <https://www.westernsydney.edu.au/hie/research/peastracker>

## How Does the Environment Affect Your Plants?

### - How Do the Plants Adapt to these Conditions?

Betty Rymer

For any plant to grow it has certain requirements, light, warmth, moisture, nutrients and depth of rooting material. All these are supplied by the environment.

The Climate – gives light, warmth, moisture.

- The macroclimate is essentially the same everywhere;
- The microclimate varies due to deep valleys, more moisture, protection from the wind, amount of sun, etc.

The Biotic effect - biotic factors are things done by living organisms and abiotic factors are chemical and physical factors like climate and soil:

- the influence of one plant on another;
- the influence of animals on plants;
- shading;
- competition for nutrients; and
- animals, birds and insects eating plants

Soil such as Hawkesbury Sandstone which weathers to a porous, sandy soil with large particles and has little water retention and great drainage can be dry for most of the year – the opposite to clay. Plants must have water.

Hawkesbury Sandstone is poor in minerals as they are leached out by the water. Water and nutrients are taken up by the fine root hairs, emphasising the importance of root systems.

But why are minerals so important to a plant?

The leaves of a plant are in effect a factory for making food by means of photosynthesis. For plants to make sugars in the factory they must have water from the roots, sunlight for energy, magnesium and iron via the roots plus sunlight to create the green colour, and stomates<sup>1</sup> to take in the carbon dioxide from the air. All plants lose water through the stomates (pores found in the epidermis of leaves, stems and other organs that are used to control in an exchange of gas and transpiration).

To make protein plants must have nitrogen from nitrates in the soil.

In spite of this there is a tremendous variety of Australian native plants growing in poor dry soils.

The vegetation on Hawkesbury Sandstone is variable from woodland to heath. All these plant communities are known as sclerophyll communities, meaning harsh leaf types.

Interestingly, there is usually a lack of annual weeds because they have a short life and need large amounts of nutrients over a short period of time.

Plants on dry sclerophyll areas will have some features to help prevent the plant losing too much water. Most water loss is through the leaves – therefore the leaves show special features such as

- a thick cuticle, eg as in Eucalypts, Banksias, etc;
- the reduction of leaf surface area to volume, eg needle-like leaves as in Banksias and Hakeas;
- the reduction of leaves themselves – whereby the function of the leaf is taken over by another part of the plant, eg by stems as in Casuarinas and phyllodes in Acacias;
- the stomates are depressed below the surface of the leaf, eg as with *Banksia serrata* or the rolling of the leaf as with Spinifex; and
- a high percentage of mechanical tissue, eg in Banksias.

When cells are flaccid<sup>2</sup> the tissue supports the leaf and plants don't wilt in dry weather.

This is just a look at Hawkesbury Sandstone soil. What about other soils? What about your soil? Test your soil – put some in a glass of water, shake well and leave.

See what layers of different particles you find. And does the water remain clear or does it go cloudy? If cloudy, you have soil that has some clay content and that will retain some moisture on which your plants may draw in dry conditions, just what you want.

Ed. <sup>1</sup>Betty has mentioned 'stomates' and 'pores', words which most of us probably don't normally use – let's find out what Wikipedia has to tell us. (Continued next page)

In botany, a [stomate](#), plural [stomates](#), is a pore, found in the epidermis of leaves, stems and other organs that is used to control gas exchange. The pore is bordered by a pair of specialised [parenchyma](#) cells known as [guard cells](#) that are responsible for regulating the size of the opening. The term is also used collectively to refer to an entire stomatal complex, both the pore itself and its accompanying guard cells. Air containing carbon dioxide and oxygen enters the plant through these openings and is used in [photosynthesis](#) in the [mesophyll](#) cells (parenchyma cells with [chloroplasts](#)) and [respiration](#), respectively. Oxygen produced as a by-product of photosynthesis diffuses out to the atmosphere through these same openings. Also, water vapor is released into the atmosphere through these pores in the process called [transpiration](#). Now we know – don't we?

<sup>2</sup>Flaccid means limp, lacking firmness, or resilience.

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## **The Leaf -- Greening Australia's Newsletter**

### **Australian native plants**

Plants provide food and shelter for Australia's unique wildlife and create healthy landscapes for people to live and work in. But over time we've lost too much of our native habitat - putting 1256 plant species at risk of extinction. We're bringing habitat back by planting thousands of trees, shrubs and grasses every year.

Every year we improve the way that we work with plants. Through scientific research we've developed innovative techniques for creating diverse native habitats in areas where people thought they were lost forever.

### **Native Australian wildlife**

For over 200 years the animals and birds of Australia have been in decline – and the threats they face aren't going away.

This has led 396 species to be listed as vulnerable, endangered or critically endangered under the Environment Protection and Biodiversity Conservation Act.

One of our main goals is to reverse this species decline and help our unique native fauna to thrive again.

### **Project WildEyre**

WildEyre is a vast conservation project covering over 1.2 million hectares of the spectacular west coast of the Eyre Peninsula in South Australia.

Stretching across over 300km of coastline, WildEyre showcases a diverse range of natural landscapes: from rugged cliffs, windswept beaches and sheltered coastal bays, to wetlands, majestic gum tree woodlands and huge expanses of mallee.

The area is recognised as nationally significant in terms of biodiversity conservation. Such a huge variety of habitat gives rise to a unique suite of flora and fauna species, many of which are endemic. This means they are found nowhere else on Earth - making the conservation and restoration on the Eyre Peninsula even more important.

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## **Office Bearers for 2017**

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|--|---|--|
| <b>President</b><br>Vacant   | <b>Publicity</b><br><b>Ben Turco</b> 9871 5493<br><a href="mailto:ben_turco@yahoo.com">ben_turco@yahoo.com</a>                              | <b>Propagation Officer</b><br><b>Lesley Waite</b> 0438 628 483<br><a href="mailto:lesleywaite@yahoo.com.au">lesleywaite@yahoo.com.au</a>     |
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| <b>Immediate Past President</b><br><b>Tony Maxwell</b> 9651 6682<br><a href="mailto:tonymax@optusnet.com.au">tonymax@optusnet.com.au</a> |   |  |

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