Eucalyptus parramattensis
(Calgaroo)

Calgaroo

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

ABN 87 002 680 408

APS NSW Gathering

The APS quarterly meeting on Saturday, 27 February 2016, will be held at North Curl Curl Community Centre commencing at 1:00 pm – while the range of activities through the day are -

- 10:30 am. Stony Range Regional Botanic Garden walks. Guided and self-guided walks in this oasis of Australian native plants located at 810 Pittwater Rd, Dee Why. After half a century of growth, the rainforest gully is regarded as one of Alec Blombery's (one of the garden's founding members) greatest achievements in the reserve. Today, it is a cool oasis populated with cedar, coachwood, flame trees, hoop pine, lilly pilly, ferns and palms.
  http://www.warringah.nsw.gov.au/play/stony-range-regional-botanic-garden

- 11:00 am. Alan Newton Reserve, a short walk through a bush regeneration area. This small area immediately to the south of the North Curl Curl Community Centre, corner of Abbott and Griffin Roads was revegetated about 30 years ago when the lagoon flood plain ceased to be a rubbish tip. It is an important transit habitat, acting as a wildlife corridor between Curl Curl Lagoon and the beach. No.55 on this map: http://eservices3.warringah.nsw.gov.au/maps/maptour/src/index.html?webmap=21d6d642ec0d49639cad8a885f86705a&embed&layout=integrated&walk=curl%20curl%20lagoon#map

- 10:30 am. Dee Why to North Curl Curl cliff top walk along Dee Why Headland. Starts at Dee Why Cliff Reserve at the end of Pacific Parade. Finishes at North Curl Curl Surf Life Saving Club. This will involve a car shuffle, which will be organised at Dee Why Cliff Reserve. The walk is only for the moderately fit and agile as there are many steps, 1.6 km. From Dee Why Headland the track passes through Hawkesbury heath vegetation, Gahnia Lookout, Tea Tree Lookout and Rulingia Lookout. From 46 to 52 on this map: http://eservices3.warringah.nsw.gov.au/maps/maptour/src/index.html?webmap=21d6d642ec0d49639cad8a885f86705a&embed&layout=integrated&walk=Dee%20Why%20Headland#map
  Brochure: http://www.warringah.nsw.gov.au/sites/default/files/documents/recreational-areas/dee-why-headland/warringahdee-why-headlandonline.pdf

- 12:00 pm Own lunch with tea and coffee provided at the **North Curl Curl Community Centre**, corner of Abbott and Griffin Roads. (Parking in Abbott Road)
  http://www.warringah.nsw.gov.au/play/community-centres/north-curl-curl-community-centre-0

- 12:00 pm Registration where raffle tickets will be sold for $5 each.

- 12:00 pm Plants will be sold from stalls set up outside the hall.

- 1:00 pm A talk will be given by Narelle Happ about *Growing Bush Tucker in the Garden*. Narelle is a garden designer and horticulturalist who specialises in native garden and permaculture design. - See more at: http://www.agardenforlife.com.au/#sthash.lOeintBR.dpuf

- 2:00 pm Afternoon tea including cakes will be offered to the talk attendees. A raffle will be held and the plant sale will continue after the talk.

Calendar

Feb 2016
Sat 6 Deadline for *Calgaroo* news / articles
Wed 10 Propagation at Bidjiwong Community Nursery at 10am
Sat 27 APS NSW Gathering hosted by Northern Beaches Group (See Page 1 for details)

Mar 2016
Sat 5 Our meeting at Gumnut Hall at 2pm – speaker Sharon Bowen on Gymea Lily
Sun 6 Deadline for *Calgaroo* news / articles
Wed 9 Propagation at Bidjiwong Community Nursery at 10am
Sat 26 Visit to Boongala Gardens, Pitt Town Rd

Our Next Meeting

Due to the APS NSW Gathering on 27 February our next meeting has been postponed until the following Saturday, 5 March 2016. It will be held as usual in Gumnut Hall, Gumnut Place, Cherrybrook at 2.00pm sharp. Please note that we must start on time because we also have a presentation by APS NSW Ltd Vice-President, Alix Goodwin. The following is part of a letter from our APS President, John Aitken, stating its purpose.

"The board of the Australian Plants Society NSW (the Society) has been giving significant consideration to the future direction of the Society. This has been prompted by declining membership and income, and financial losses at the state level. If we are to survive, we need to attract and retain new members and volunteers. In order to do so, we must meet the needs of the members of our communities in a rapidly changing world."

"For this reason, the board is developing a strategic plan to guide the future direction of the Society. Members of the board will be contacting district groups to organise visits to the groups over the next three months to discuss the challenges facing the Society and to seek input on how these can be addressed."

The board is also holding a strategic planning workshop on the weekend of Saturday 28 May and Sunday 29 May 2016. District groups will be invited to send one committee member to the workshop which will be held at a central location in Sydney. Travel costs will be subsidised and twin share hotel accommodation provided for those requiring it."

So let us hear Alix with great anticipation and a willingness to work to make our Society more effective again.

Gymea Lily, *Doryanthes excelsa*
Image: www.anbg.gov.au

Our speaker will be Sharon Bowen who delighted Sutherland Group with her talk on *Ecology of the Gymea Lily*. Come and hear about this strange plant!

The Gymea Lily, *Doryanthes excelsa,* is an outstanding plant, perhaps a little too big for a small garden but a majestic, easily grown plant in a larger garden. However be prepared for it to mature for several years before it flowers, perhaps four or five, may be up to 20.

Doryanthes excelsa is a clumping, tussock-like species consisting of long, lance-shaped leaves about 150 cm long by about 10 cm wide. The leaves are bright green in colour. The flowering stem emerges from the centre of the tussock during winter and may reach 3 to 5 metres in height when the flowers open in spring. The flowers occur in clusters at the top of the stem and, individually are about 100 mm long. The flowers are usually red but a rare white-flowered form is known. The flowers are bird-attracting.

Do other members have flowers that they could place on the specimen table at meetings. We thank Pip, Alan and Jean for their contribution to each meeting and on occasion ones from others. But surely there are others who have something to share. Please stick name tags on the specimens if you can but still bring it if you don't know its name.

The Hills Living Sustainably Walks and Workshops

The Hills Council is holding the following events in the near future. Check details when booking.

Smart gardening, Thursday 25 Feb, 10.00am to 11.30am Explore clever ideas to use in your garden - a large cross section of ideas from garden design to maintenance, creative solutions for people with limited time, budget or space.

Bush walk, Toongabbie Creek, Sunday 28 Feb, 9.30am to 11.30am. Enjoy a walk among the re-emerging diversity of native flora in an environment that was once choked with weeds. See the difference a team of dedicated volunteers can make.

Bush walk, Fred Caterson Reserve, Wednesday 2 Mar, 9.30am to 11.30am. The Hills Shire has several large bushland reserves which provide habitat for a number of species of native fauna. Discover the plants which provide food and shelter for native animals.

Creative installations, Thursday 3 Mar, 10.00am to 11.00am. Join the growing trend to install wildlife nest boxes in your backyard. Learn how to make a variety of attractive and well-designed boxes. This is box building for the birds 101. (Designs provided).

Book walks and workshops on line at: www.thehillsenvironment.eventbrite.com.au

Phaius tancarvilliae

***Graeme Mee**

Phaius tancarvilleae
Image: Graeme Mee

Phaius tancarvilleae is a robust plant with elongated, oval shaped leaves up to about a metre or more long and flowering stems which may reach 2 metres. The flowers are the largest of any Australian orchid and occur in clusters of between four and twelve. The individual flowers are about 100mm diameter and are reddish brown and white in colour. Flowering occurs in spring.

Unlike most Australian terrestrial orchids, *P. tancarvilleae* is easily grown. It does best in a large container with a potting mix which is high in humus content. It prefers a position in semi-shade.

P. tancarvilleae is easily propagated from seed and may also be propagated by division of the clump. It is also reported that new plants can be obtained by cutting the flower stem into pieces and placing them on a moist surface. This is how I grew my specimen which was taken from a flower that Barry Smith brought along to a meeting. My plant is doing well in the ground in a very shady spot between our carport and the fence.

*Graeme Mee is a member of APS Hunter Valley Group and Editor of their newsletter *Gumleaves* in which this first appeared.

Jennifer Farrer Reports

That was a lovely photo of *Scaevola ramossisima* in the December *Calgaroo*. You said that not many members grow it now. I have tried to grow it several times and have always lost it. It seems to need a lot of water. *Scaevola aemula* seems to be the exact opposite. It seems to thrive in dry conditions. We have propagated it in the nursery and I am sure we have plants available for sale. How about the experience of other members?

Our Group Year

APS NSW Ltd has directed Groups to change their operating year to be that of a calendar year as a consequence of Government changes to Company Law. No longer will small companies such as APS be required to meet the same stringent requirements expected of large companies. As a consequence we must vary our Rules – our Group constitution. In view of the visit of Ms Alix Goodwin on behalf of APS at next meeting we will hold a brief Special General Meeting at the commencement of our following meeting in April and will notify members of the intended changes shortly.

Why do we have plant pests? *Denis Crawford in GardenDrum http://gardendrum.com/

Around about now your garden should be teeming with insects. Luckily, most insects are not harmful to us or our plants but some of your garden visitors will be pests. Why do some insects become pests? There are several reasons!

Too much of a good thing

Populations of native Australian insects can explode when food availability is increased dramatically. A concentration of many thousands of food plants of the same type (i.e. a crop) is irresistible to plant-eating insects. Those native insects are then called “pests” as they affect crop yields, the profits of growers and the cost of produce to consumers. In Australia, such native insects turned pests include cutworms, armyworms, native budworm, lightbrown apple moth and grapevine moth. With a common name like grapevine moth you can be forgiven if you thought the last pest was not native. Don’t start me on stupid common names!

Grapevine moth larva

Monoculture modifies the environment to such an extent that it not only favours some insect species (pests) but inhibits others (usually beneficial insects or ‘good bugs’). For example, the native plant species which were in an area before a crop was planted may have harboured predators or parasites of a pest species – removing such plants may cause beneficial populations to collapse. In our gardens we can avoid this by growing a diverse range of plants, and not having too many of the same plant growing next to each other.

Left: Grape vine moth larva

Right: Cabbage white butterfly

New kids on the block

When an insect is introduced into an area with few natural predators and parasites and an unlimited food supply, it can become a severe pest. Common introduced insect pests include diamondback moth, many aphid species, cabbage white butterfly, European wasp, African black beetle and potato moth. Common predators such as lacewings or ladybirds will often tackle a new insect but, if they are not in sufficient numbers and there are no pest specific parasites or pathogens in support, they may lose the battle.

The solution to this problem in commercial agriculture and horticulture has been to introduce parasites specific to a particular pest. A good example of that is the cabbage white butterfly for which a number of parasitic wasps was introduced back in the 1940s. If cabbage white butterfly arrives in your garden, chances are these wasps will follow them. When I was writing my book *Garden Pests, Diseases and Good Bugs* I left my brassica bed open to attack, rather than netting it off as I usually do, so I could photograph these parasites. Sure enough the cabbage white butterflies arrived as did their parasites and I got my shots. The interesting thing I noted was that towards the end of the season about 95% of the cabbage white butterfly larvae and pupae were parasitised. How’s that for biological control!

Killing beneficials

Pest populations can reach outbreak proportions if beneficial organisms are suppressed or eradicated. The best way to disrupt the activities of beneficial organisms is by killing them with pesticides. Broad spectrum pesticides kill beneficials just as efficiently as they kill pests. We really need to be careful with all chemical use if we are attempting to establish a population of good bugs in our gardens. Some beneficial insects are even susceptible to 'soft' sprays such as horticultural oil and soap sprays - it pays to check before using such sprays and always carefully target the pest.

Resistance to Pesticides

This paragraph is for those who use synthetic pesticides in the garden. The process of natural selection among insects is continuing out there in the garden among your plants. Pesticide applications usually don’t kill 100% of the target pest, which leaves a small number of survivors who reproduce and pass on this ability to survive

pesticides to some of the next generation. Resistance can develop and become entrenched very rapidly in pests that produce a new generation every few weeks. Not surprisingly pests with short life cycles and high numbers of generations per year top the list of pests resistant to the most chemicals. The two-spotted mite (below) which has a life cycle of 1 – 4 weeks and 12 – 20 generations per year (depending on temperatures) is resistant to over 70 of the chemicals registered against it. The green peach aphid is resistant to a similar number of chemicals.

Left: Two spotted mites aka red spider mites

Right: Minor caterpillar damage on a Gum leaf

Let's tolerate a bit of damage

When I was a child finding a green caterpillar while shelling peas from the greengrocer was quite common (and not particularly alarming). The situation is very different these days. Produce buyers for the major supermarket chains appear to have a zero tolerance for any living thing in produce (including beneficials like lacewings and ladybirds) and damage to produce (even minor blemishes).

The same level of tolerance (or lack of it) to insects also applies in some flower markets. It is understandable that many commercial growers are reluctant to give up the spray regimes they have traditionally used to cater for this zero tolerance. The problem with that approach is that such a regime increases the likelihood of pesticide resistance. Frequent chemical use is also costly, not to mention the associated environmental and health concerns. In a garden a rigid spray regime would be a ridiculous approach to adopt. We are not commercially bound to our produce like a commercial grower is, so why not tolerate a bit of a nibble or blemish here and there.

The future

The impact of climate change on pest insect populations is still largely unknown. There is no doubt though that climate change will favour some insects and inhibit others. If climate change favours pest species and inhibit beneficials, we are in dire trouble. The extent to which a species can survive climate change may ultimately depend on their ability to evolve and cope with drier and hotter conditions. One thing is for sure, pests such as aphids and bush flies will arrive earlier each year!

*Denis Crawford has studied, photographed and written about insects for more than 35 years. His background includes a decade in entomological research, and many years collaborating with an integrated pest management consultancy. Denis is author of *Garden Pests Diseases & Good Bugs: the ultimate illustrated guide for Australian gardeners* and co-author of *Backyard Insects* (soon to be released in an updated edition).

Yates Gardening Notes

Myrtle rust is a relatively new disease in Australia, which attacks native plants such as lily pily, agonis, tea tree (melaleuca), bottlebrush (callistemon), austromyrtus and eucalypts.

It initially causes bright yellow to orange powdery spots which may be surrounded by a purple ring and causes leaves to distort. Extensive myrtle rust can result in plant death. As soon as myrtle rust is noticed, it's important to initiate some control measures to limit the spread, both to other garden plants and also into bushland.

Yates® Zaleton® Fungicide will control myrtle rust. It contains a combination of two fungicides, which help to both cure existing disease and prevent further infection. Any secateurs or garden tools that come into contact with infected plants should be disinfected and any prunings should be placed in a bag and put into the rubbish.

For more information on how to use Zaleton for myrtle rust control, visit www.yates.com.au

Ed. Thanks to Ian Cox for passing this on to us. I wonder if anyone has found myrtle rust in their garden lately?

Lomatia silaifolia

Lomatia silaifolia, commonly known as crinkle bush or parsley fern, is a plant of the family Proteaceae native to eastern Australia. Naturally found in open forest, it grows as a small upright shrub 1–2 m high with highly pinnate leaves reminiscent of parsley. These are up to 35 to 50 cm long. The white inflorescenses appear in summer over summer and are up to 45 cm high.

In total there are about 12 species of Lomatia, most of which occur in eastern Australia but 3 or 4 are found in South America. This suggests that they are relics of the ancient land of Gondwana.

Most species may be grown from seed which germinates well without pretreatment. Cuttings also strike readily.

This image was taken by Marilyn Cross near Little River, Buxton, in the Southern Highlands. Note the possible pollinators, one clearly an ant and another a bug, head down, that can't be identified.

Lomatia silaifolia

Image: Marilyn Cross

WMO warns El Niño will be among biggest on record

***David Twomey**

The United Nations weather agency has warned the El Niño weather pattern, a phenomenon associated with extreme droughts, storms and floods, is expected to strengthen before the end of the year and become one of the strongest on record. The World Meteorological Organisation (WMO) said this El Niño was already "strong and mature" and the biggest in more than 15 years.

The phenomenon is driven by warm surface water in the eastern Pacific Ocean, and this time three-month averages will peak at more than two degrees Celsius above normal, putting this El Niño in the same league as those seen in 1972-73, 1982-83 and 1997-98, the WMO told Reuters Newsagency. "Right now we say we think it's really going to be one of the three strongest ones, it may be one of the two, that we don't know yet. But definitely it's already a very strong one," WMO Secretary-General Michel Jarraud told a news conference. He said the world was better prepared for this El Niño than before.

As a result the worst affected countries were planning for the impact on agriculture, fisheries, water and health, and implementing disaster management campaigns to save lives and minimise economic damage. "However, this event is playing out in uncharted territory. "Our planet has altered dramatically because of climate change, the general trend towards a warmer global ocean, the loss of Arctic sea ice and of over a million square kilometres of summer snow cover in the northern hemisphere," Mr Jarraud said. "So this naturally occurring El Niño event and human-induced climate change may interact and modify each other in ways which we have never before experienced. "Even before the onset of El Niño, global average surface temperatures had reached new records. "El Niño is turning up the heat even further."

Heatwaves would be hotter and more frequent and more places would be at risk of flooding, Mr Jarraud said, while the most severe storms, equivalent to category four and five hurricanes, would occur more often.

In addition, rising sea levels mean tsunamis and storm surges will have greater reach and inflict more damage when they hit land, Mr Jarraud said.

El Niño conditions normally reach maximum strength between October and January, then persist through much of the first quarter. "We anticipate that the El Niño will peak over the next few months and will progressively, when we go towards May, June, July, when we go to the second quarter of next year, will go more towards neutral conditions," Mr Jarraud said.

*David Twomey is a journalist with *Eco News* where this article first appeared.

Does any other member have something to say? Let us hear from you.

Grevilleas

Do you visit the web site of Australian Plants Society NSW Ltd regularly? Several months ago the three lists below of ten Grevilleas in each of the following categories were shown:- "Hybrids", "Indigenous" and "Reliable in Sydney". So visit www.austplants-nsw.org.au/ from time to time.

These lists may be very useful to those wishing to plant Grevilleas for the first time – although some of us prefer the challenge of growing more difficult species and seeking microclimates in our gardens to do so.

The following **10 plants are reliable, hardy hybrids** which are commonly available in our nurseries.

1. *Grevillea* 'Honey Gem'
2. *Grevillea* 'Moonlight'
3. *Grevillea* 'Misty Pink'
4. *Grevillea* 'Sylvia'
5. *Grevillea* 'Royal Mantle'
6. *Grevillea* 'Superb'
7. *Grevillea* 'Robyn Gordon'
8. *Grevillea* 'Long John'
9. *Grevillea* 'Dargan Hill'
10. *Grevillea* 'Lillian' (excellent rockery plant)

These **10 plants are indigenous to the Sydney region** and may be most easily obtained from your local group of the Australian Plants Society, Bush Regenaration or local Council Community Nursery.

1. *Grevillea caleyi* (rare, much longer lived if grafted; very attractive foliage)
2. *Grevillea longifolia*
3. *Grevillea aspleniifolia*
4. *Grevillea sericea*
5. *Grevillea linariifolia* (delicate and pretty)
6. *Grevillea speciosa* (not as easy to grow as others on ths list)
7. *Grevillea diffusa*
8. *Grevillea juniperina ssp juniperina* (most clay tolerant on this list)
9. *Grevillea arenaria*
10. *Grevillea johnsonii* (again, not hardy unless grafted)

Finally, **10 species that are reliable in Sydney's climate** - reprinted from *The Grevillea Books,* published by Olde & Marriott.

1. *Grevillea banksii*
2. *Grevillea beadleana*
3. *Grevillea buxifolia* (actually a Sydney local, not as hardy as others on this list)
4. *Grevillea hodgei*
5. *Grevillea lanigera*
6. *Grevillea macleayana*
7. *Grevillea molyneuxii*
8. *Grevillea oldei*
9. *Grevillea oleoides*
10. *Grevillea venusta*

Left: ***G.* 'Honey Gem'**

Right: ***G. caleyi***

Below: ***G. banksii***

G. 'Honey Gem' is a large shrub growing up to 4m x 3m. It flowers most of the year wih a flush in late winter/spring.

G. banksii is another tall shrub growing up to 4m x 4m. It flowers in spring but may be seen most of the year.

G. caleyi is also a tall shrub growing to 4m x 4m or even more if grafted. It flowers August to December. It is regarded as rare and endangered and is best suited to grafting onto *G. robusta,* reputedly said to take within a fortnight.

Ed. The views expressed re ease of growing were in the article.

Boronia

I guess it is likely that I would say my favourite genus is the Boronia although Grevillea and Eremophila are close by. But undoubtedly I think more about the latter two.

Is it because Boronia are the more difficult to grow in our Sydney climate notwithstanding the Eremophila is essentially a desert loving plant and Grevillea comes from many differing ecological areas? Is it because there are more species of the latter two, nearly 350 Grevillea and about 220 Eremophila – but only about 95 Boronia?

But all three genera have much to offer and many native plant gardeners eagerly seek ways to maintain all three in their Sydney plot. All require soils with excellent drainage.

Although most species of Boronia are indigenous to WA, we are fortunate to have a number of species in The Hills and nearby.

One of the earliest to flower each year is *B. ledifolia*, the Sydney Boronia, which may be seen in The Hills in July to September. It grows 30-100cm tall with brown stellate-hairy branchlets. Leaves are simple elliptical or 3-foliate, 10-30 x 2-4mm, green with fewer hairs above, paler and densely hairy below, margins recurved. Petals are bright pink, 5-10mm long and valvate (petals meet but don't overlap).

B. mollis, Soft Boronia, is another that we may see. It is a robust shrub to 2m with dense soft brown stellate hairs on branches and leaf axes. The leaves have an unpleasant odour and are pinnate with 5-9 moderately hairy oblong-elliptic leaflets, the terminal leaflet being the longest (to 40mm). The flowers are 4-petalled of a star-like appearance, pink in colour, some 10-15mm in diameter, displayed in clusters in the upper leaf axils.

A third to be found in The Hills is *B. pinnata*, Pinnate Boronia. This is an aromatic, glabrous shrub that grows to about 1m wity smooth angular branchlets. Leaves are pinnate with 5-9 pinnate leaflets on a winged axis; the leaflets are oblong-elliptic, about 15 x 2mm, entire, acute and thick. leaflets are oblong-elliptic, about 15 x2mm, entire, acute and thick. The flowers are well displayed in the upper leaf axils and are about 15 mm in diameter.

Boronia ledifolia
(Sydney Boronia)

Boronia mollis
(Soft Boronia)

Boronia pinnata
(Pinnate Boronia)

Data from ***Native Plants of the Sydney Region***, Fairley A and P Moore, Jacana Books, 2010.

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