

# CALGAROO

April 2023



*Eucalyptus parramattensis* - Calgaroo

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

**What's on in 2023**     *Please note our April and May activities have been swapped*

**Saturday/Sunday 15-16 April: Collectors' Plant Fair, Hawkesbury Race Club, Clarendon.**

**Saturday 22 April 2 pm: Members' meeting at Gumnut Hall, Gumnut Place Cherrybrook.**  
Speaker James Indsto - *Pollination of Diuris Orchids*. See page 2.

**Saturday/Sunday 27-28 May: Visit Phillip Baird's property at The Branch Karuah.**  
This will be a weekend away.

**Saturday 24 June: Bushwalk Challenger Track West Head, Ku-ring-gai Chase NP**  
Leaders Lesley Waite and Ian Cox.

**Saturday 22 July: Visit Mt Annan Botanic Garden**

**Saturday 26 August: Bushwalk**

**Saturday 23 September: Members' meeting at Gumnut Hall, Gumnut Place Cherrybrook.**

**Saturday 28 October: Bushwalk Vineyard Creek Dundas. Leader Jennifer Farrer**

**Saturday 25 November: Members' meeting and end-of-year celebration**

We've changed the visit to Phil Baird's property from April to May. This was because of the closeness to ANZAC day, and being the last weekend of the school holidays, it led to shortness of accommodation for Saturday night. This also means we're now having a members' meeting in April.

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## Meeting 22 April 2 pm - Pollination of Diuris Orchids

Jennifer Farrer



The speaker will be James Indsto, one of our own members. James has always had an interest in science and horticulture and started out by training in horticulture. A BSc. in biology led to a role in plant virology research and then in cancer genetics. This led to a position with NSW Police as a forensic botanist, where he has undertaken major crime case work. The topic of his talk will be "The Pollination of Diuris Orchids" and will be based on research for his Masters of Science degree.

Diuris orchids frequently occur in woodland in the same locations as the many species of pea flowers we know collectively as "Eggs and Bacon" (Daviesia, Pultenaea, Bossiaea, Dillwynia etc.). For quite a long time there were accounts of some species of bees visiting these orchids even though there was no reward for them. So this is a tale of deception in nature. The orchid has mimicked the pea flowers the bees really should be visiting for food, thereby ensuring that it will be pollinated successfully. James will give an account of the research which proved this by using DNA analysis.

The meeting will be held at the Gumnut Community Centre, Gumnut Place Cherrybrook. Visitors are welcome.



*Diuris alba*

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## Visit Phil Baird's property at The Branch Saturday 27 May

Pip Gibian

After our program change, we are now going to visit Phil Baird's interesting property on 27<sup>th</sup> May. This property is in the locality of The Branch, north of Sydney and the Hunter River. Instructions for finding this property are at the end of this description.

Phil's property used to belong to a logging family. Rather fortunately the tree species on the property were not good for use as timber, and very few were cut down. It is real woodland, fairly open and flat, with eucalypts and grass, but also a variable, not-so-tall shrub layer. The stand-out feature is the masses of *Banksia spinulosa* plants in the shrub layer, and their flowers. The colours in these banksias show huge variation, variable mixtures of yellows, oranges and reds, with dark styles, and even a pale one, almost cream, seen during my last visit. They are really beautiful. We have timed our visit for the peak flowering of this species.

Since our last visit, Phil has had a botanist look at the property, and has an impressive list of plant species found. There are plenty of other species to look for. As you go further from his house you approach the edge of the property on The Branch, a waterway, which flows into the Karuah River. Along the bank, there is a strip of rainforest.

If you leave Sydney between 8.30 and 9 am, you should arrive by 11.30 am. Bring lunch and snacks. Phil will supply hot water for drinks, and I will have the “afternoon tea box”. He says if you need food heated up, he can arrange that.

We are thinking of having a weekend away, with visits to the Hunter Botanic Gardens and the Hunter Wetlands on Sunday. Both are very interesting, and we hope to arrange a guide at each place. The Wetlands also has lots of information, a shop and a good café for lunch. Members of the Newcastle APS group are heavily involved in its upkeep.

### **Finding Phil’s Place**

Head out of Sydney and join the northern M1 expressway, following this until its very end. At the traffic lights at the end turn RIGHT, following the road signs to Taree and Queensland (and everywhere in between). Follow those signs as they indicate a LEFT turn onto the road leading up onto the high bridge over the Hunter River. Continue along the M1 highway north, through the semi-industrial town of Heatherbrae. There is a large roundabout at the north end of Heatherbrae, keep going STRAIGHT ACROSS this, still following signs to Taree and Queensland. About 12 KM north of the roundabout there is a well-labelled LEFT turn to Gloucester, along a road called Buckets Way. Currently, there are more “buckets” than usual on this road, with rough areas of filled potholes and flood damage, be careful. (“Buckets” actually refers to the hill formation near Gloucester, thought to look like a row of upturned buckets by the early settlers.) After about 20-25Km, you come to the little settlement of Booral. There is little commercial activity here, except a bread and cake shop set back from the road in a little row of odd shops on the right. You could buy lunch there, eg pies or similar, if you wish. Near the north end of Booral turn RIGHT along the Booral Road, which leads to Bulahdelah, back on the M1. After 6Km there is a RIGHT turn onto The Branch Lane. Travel along this road about 4.5 km, past a side street, Warraba Rd, on the right, then a bright green letterbox on the left. Phil’s gates, marked by two large standing rocks are soon after that, on the left. If you reach the bridge, you have gone too far. He will mark the gates with balloons or similar.

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## **Fred Caterson Reserve Masterplan update**

**Jennifer Farrer**

There was a meeting held on March 18 by the Friends of Fred Caterson Reserve. More than 80 people attended including the Mayor of The Hills Shire, Peter Gangemi, the Labor, Liberal and Greens candidates for Castle Hill, and two members of the Legislative Council – Peter Primrose and Sue Higginson who were not up for re-election.

In response to the ecologist’s report, a new concept plan has been prepared for the former Pony Club site which can be seen on the Council’s dedicated [Fred Caterson Reserve webpage](#).

This now preserves the critically endangered vegetation communities nearest to Gilbert Road. However, the main issue is still the overdevelopment of the site for an *elite*, not a community sport.

The development will still impact the flora and fauna of the reserve. The NSW Region's submission to Council highlights the impact of the development on the adjoining bushland in terms of construction damage, runoff from the fields and the visual impact.

Most of the opposition so far has focused on the Pony Club site but it is important to remember that there are proposals to clear bushland around the other sporting fields for spectator seating etc.

We need to keep up the pressure on Council to change the Masterplan. So far those who have written opposing the plan (including our own Parramatta Hills Submission) have not received replies from the Mayor and Councillors or they have been form letters that have not adequately addressed the issues raised.

It would be good if as many members as possible could write to the Mayor and Councillors raising your concerns about the Masterplan. You do not have to be a resident of the Hills Shire to do this. Many people who live on the Hornsby side of Old Northern Road use the reserve for passive recreation. It is a resource for all, not just Hills residents. The endangered flora and fauna which live there are a resource for the whole of New South Wales.

Here are some points you may wish to include in your letter:

- The Management Plan states "*It is apparent that the Fred Caterson Reserve is crucial habitat for rare and endangered flora and fauna species, and its significance as habitat and riparian corridor within The Hills Shire Council area should not be overlooked*". This Vision is **not** being implemented in the current Masterplan.
- In recent years significant weed management, regeneration and bushland maintenance work has been undertaken by Council's Bushland Management Team and Contractors funded by a \$2 million grant obtained by Council for use within the Cattai Creek Catchment. Is this work now going to be undone by clearing some of this restored bushland?
- We have already lost substantial bushland of the original reserve to sporting fields. Can the proposed clearing of a further 10% of the bushland around the Junior Sporting Fields, Radio Controlled Car Track, BMX Track and Baseball Field be justified.?
- It will be years before the proposed replanted bushland will be mature enough to provide effective habitat for local fauna.
- What offsets are proposed to compensate for the loss of bushland? Often land nominated for offsets has already been preserved so does not represent an actual gain for the community.
- Sporting fields are only one facility that the community needs. People also want picnic spots, nature walks, children's playgrounds, community gardens and places to recharge.
- The new Concept Plan for the Pony Club Site has only 179 car parking spaces which will be far from adequate for events that are estimated to draw 3,500 people. How long will it be before there is a request to extend the car park into the endangered vegetation communities on-site?

Send your letter to the Mayor and all the Councillors. Please let us know who replies.

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## Xanthorrhoeas

The *Xanthorrhoea australis* plants in the garden at the Community Environment Centre Annangrove have been major attractions and talking points. They flowered for the very first time last Spring.



The stunning flowers were enjoyed for many weeks by the CEC volunteers and visitors. Their rich nectar was enjoyed by honey-eating birds and insects.

In January the flowers fell and the fruit developed.

In February the fruit opened, allowing the hard black seeds to fall to the ground.

Chris Jones and I collected seeds and put them in a moist seed-raising mix.

After about four weeks shoots started to appear.



We'll have to be patient though. It could take up to three years before the new seedlings are big enough to plant out in the garden.



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*Protecting Habitat  
Conserving Wildlife  
Building Knowledge*

Cumberland Land Conservancy Inc (CLC) is a volunteer-operated not-for-profit charity dedicated to acquiring land for conservation. We focus on the 'Cumberland Plain' of Western Sydney, one of the most heavily cleared landscapes in Australia. This already heavily cleared and fragmented region is now being cleared and developed at an even more rapid rate with little or no planning to conserve key linkages for wildlife.

Saving the Cumberland Plain requires the purchase and protection of these key linkages. CLC stands apart as a community-based charity successfully securing biodiversity corridors in Western Sydney.

Thanks to the generosity of our supporters CLC owns and manages four properties protecting 49 hectares of habitat forever, and linking key habitats in Western Sydney. All the properties are within Penrith LGA, at Agnes Banks, Llandilo and Mulgoa. They are strategic links between larger tracts of land in the conservation estate. As such, they facilitate terrestrial fauna movement across the landscape.

If you would like to join CLC (\$10 per annum) and participate in conservation land management, or just volunteer for Bushcare, Streamwatch, Bird Surveys and other activities please go to our website [here](#).

## A Slow Morning

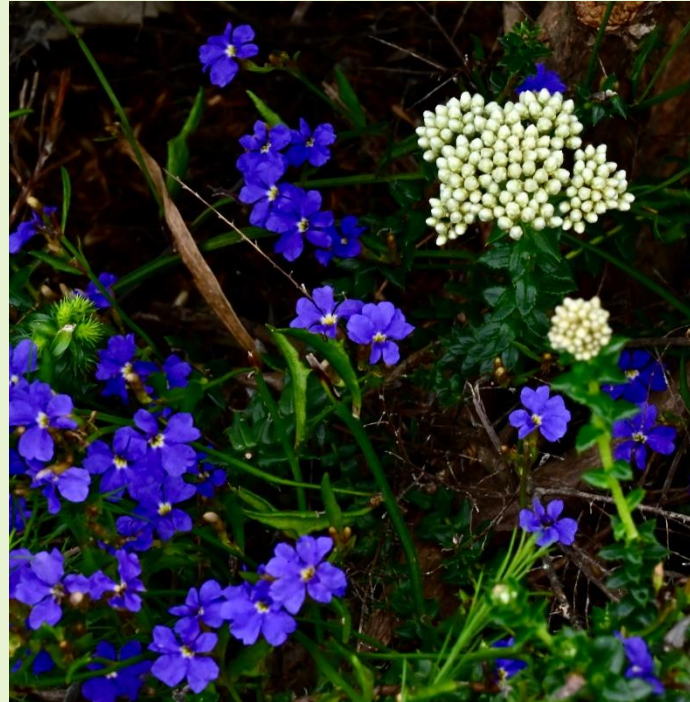
Harry Loots (October 2022)

It was early. I was at Dobroyd Head for the sublime experience of the Australian bush as it was before Captain Phillip had arrived in 1788. The car park was full, not with bushwalkers but with dog walkers, who congregated on the oval while their dogs socialised. It was playtime. A group of six women released from their children's or husband's demands huddled for a discussion about last night's television, while their large dogs sniffed each other's genitals. One dog's attempts to hump a few companions did not distract the owners from an intense account of sex and the city.

A concerned latecomer cruised by looking for a space to park. Her small child was strapped into the car's back seat while her dog sat in the front, its head resting on the steering wheel. She was looking for her early child dog group.

After passing the "no dogs allowed" sign I was alone, walking very slowly, wanting to examine every metre of bush track. It was not going to be a lengthy walk, but rather a long walk where I would wait to discover visual attractions, obscure plants or fleeting finches. It was to be a meditation on place.

A woman's voice could be heard. The new raised plastic boardwalk installed over a wet track gave a new perspective on the surrounding vegetation. The woman in her early 20s dressed in loose grey cotton gym shorts and a singlet appeared two minutes later. Walking at a brisk pace she was engaged in deep conversation on her handleless



mobile phone. The globular cream *Cassinia denticulata* flower heads were in abundance. While I took a photo a tiny Red-Browed Firetail shot about in the scrub. It was too fast for a photo. The *Dampiera stricta* beside the boardwalk was more than blue, it was purple. Before she reappeared, I heard the woman's voice continuing her conversation about someone's values, if I overheard correctly.

White butterflies darted about the red Mountain Devil and bottlebrush flowers next to the sandstone steps down to the Dobroyd Head lookout. They travelled in pairs. As did two women aged in their 30s coming down the steps who were dressed in revealing leotards. They talked about a troublesome relationship. No doubt advice was given. Looking down the valley I admired the view of burnt sticks and



new growth, only occasionally punctuated with the brilliant red of grevillea in flower. Two months earlier flowering pea flowers would have produced a mass of yellow.

A flock of six tiny White-browed Scrubwrens flashed past my face. It was time to get off the steps to wait and see with my camera ready. The wrens weren't waiting for a portrait as they darted from tree to rock in an irregular pattern behind leaves and over ridges. Patience rewarded only one acceptable shot. Returning to the steps camera in hand, a Red-Browed Firetail crossed the path. Bang, bang I got two shots and he was off like a shot never to be seen again. A group of 15 elderly walkers trudged up the steps, some complaining about yet another hill. They must have made an early start from Manly and were on their way to the Spit. I flippantly asked if they had seen any birds. There was no response.

Once off the perfectly-engineered main track, I was on my own down through the heath to the Crater Cove stone huts that were built between the Great Depression and the 1960s. This less-popular track is a mix of muddy eroded gullies, dropoff ledges and rock platforms, a traditional Sydney bush track. The flowering of wax flowers, pea flowers and boronia had finished, although I did find many purple fan flowers (*Scaevola ramosissima*) just before the final drop to the huts.

A New Holland Honeyeater nestling was being fed in a dense thicket growing below the rock platform. At the huts, I counted at least 10 Eastern Water Dragons at various stages of maturity. Besides the charm of a bygone era of make-do with driftwood and bush-rock, Crater Cove is a place of solitude during the week. I refreshed my water from the stream running off the slope, and I could have swum naked in the sea.

All this is within a few kilometres from Sydney's busy centre!



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## Smoking Seeds

**Maria Hitchcock**

From Maria's [Save our Flora E-Bulletin February 2023](#)

Many Australian native plants are difficult to germinate without the addition of smoke. Growers use smoke water as an aid to germination, but getting hold of a product can be difficult and expensive. After reading an account by Peter Ollerenshaw on his method of germinating *Correa* seed, I decided to experiment.



First, I bought a small walk-in greenhouse (Saxon 140 x 70 x 200 cm) from Bunnings for \$49.00. My husband and I found it was very easy to assemble with no screws or tools needed. It had push-in plastic corners, metal poles and a green plastic mesh cover with a zip-open door. The important thing was to be able to close it up. The shelving was quite flimsy so I secured them with cable ties. The greenhouse itself is not very stable. It needs to be secured to another structure like a wire fence. It's quite easy to push some tie wire through the plastic cover, around a couple of upright poles and secure it to the fence. Ours is sitting on concrete but it does come with some cheap tent pegs for securing it to the ground.

Photo: Bunnings

The next step was to put seed trays on the benches. I like using kitty litter trays which are very strong and will hold at least six punnets. Water is added every now and then to the base of the tray to water the punnets by capillary action. Now for the smoke. We had an old metal drum and inserted an empty 4L paint tin inside. My husband put sand and pebbles in the base of the paint tin. Then he dropped in a couple of firelighters and a few pieces of hardwood charcoal (also available from Bunnings). The firelighters were lit and they created a flame for the charcoal to start burning. Green leaves were added to the burning charcoal inside the paint tin.

At this stage, we moved the drum into the centre of the greenhouse floor - not touching the cover at any stage. Once the charcoal was alight, we dropped in pieces of fresh green eucalyptus leaves to start the smoke going. When it was smoking strongly, we zipped the door down and left it for a couple of hours before opening the door, removing the drum and



putting out the smouldering fire. Peter Ollerenshaw suggested that 30 minutes was sufficient. It's possible that different seed might require more or less time. I'd be interested to hear about this from our propagators.

The whole process was very easy. It's a good idea to wear an industrial mask when dealing with smoke. I wouldn't use the BBQ briquettes available in supermarkets as they are full of chemicals. Firelighters are bad enough. You can use any bits of wood - no need to buy the charcoal (this was just an experiment). Old Banksia cones also burn well.

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*Eucalyptus pauciflora*  
(Snow gum) – from  
APS Sutherland  
Group’s newsletter  
March 2023. Taken in  
the Snowies.  
Photo John Arney.



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## Next ANPSA conference in Melbourne 2024

The next Australian Native Plants Society (Australia) biennial conference, *Gardens for Life*, hosted by APS Victoria, starts on 30th September 2024. It will be held in Melbourne.

I’ve just received their first newsletter, and the planned events look amazing. If you are thinking of going, it would be worthwhile to register your interest [here](#). Even if you’re not thinking of going this would be worthwhile too, as you would then receive the newsletters.

The promotional video is brilliant!

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## Why do plants produce new leaves that are red?

Kevin Mills

Take a walk in the rainforest locally, and you will often notice that many trees are producing new growth that is various shades of red, pink and purplish. Why do plants do this? The answer appears not to be well known. I came across two theories on why this may have evolved.



The new red leaves of the rainforest trees Oliver's Sassafras *Cinnamomum oliveri*

**Theory 1.** In new shoots, the chloroplasts, containing green chlorophyll that produce a green leaf, are not yet developed. So plants replace the green chlorophyll with a red pigment called anthocyanins. This is apparently a kind of sunblock for the new growth, protecting the leaf from 'sunburn'.

**Theory 2.** Young leaves are not yet performing photosynthesis, due to a lack of green chlorophyll, so they are not making food, therefore they are without much nutritive value to the plant. There also is little nutritive value to a herbivore. The plant is investing energy to grow the new leaf, so avoidance of herbivory allows the investment a better chance to mature. The optical properties of anthocyanins have been studied most recently. Most invertebrate herbivores, such as insects, can detect colours in the blue range but not in the red range of the spectrum. Also, most mammals, except for primates, essentially are blind to colour in the yellow to red range, so perceive those colours as shades of grey. Red leaves would be perceived by leaf predators as somewhat dark and maybe dead, and therefore not a choice food material. Perhaps the red of new leaves, allows the plant to hide them by making them cryptic or unattractive to the herbivores that would otherwise eat them as they grow.

Thanks to Henderson State University, Arkansas and Dr Dugald Close, University of Tasmania, respectively, for the above.

## One Man's Meat

Ann Brown

From Hornsby Shire Council's Booklet *Celebrating 30 years of Hornsby Bushcare*

*Now privet, UK's favourite hedge, came to Australia free,  
and so enjoyed our wide brown land it turned into a tree.  
Trad came from South America and spread along our creeks,  
but no matter how you weed it out, it's back again in weeks.*

*Honeysuckle, out of China, you might think could feel a little lost,  
but it has adapted to our scorching sun, our flooding rain and frost.  
It covers walls and timbers well, but not satisfied with these,  
it marched on out into the bush, and covered all our trees.*

*Our friends arrived from overseas and admired our lush green grass,  
shall we say it's from South Africa, or shall we let that pass?  
From seed to weed in just four weeks – I think they may be right,  
it seems Ehrharta seeds if left alone, spring full-grown overnight!*

*Asparagus has spread so much; it should be a deportee,  
for no matter how you root it out there is no guarantee,  
that any fragment left behind won't bide its time till spring,  
then overpower our native plants, plus almost anything.*

*Many arrived as potted plants, but after a short while,  
they found the indoors boring, 'cos it really cramped their style.  
So they tried a different way of life, successfully it seems,  
to add a new dimension to the weary Bushcare Teams*

*So – did some gung-ho politician with a Visa in his hand,  
say "Hello" to these strangers – and "Welcome to this land"?*

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## Garden Design

I've just had a look at the YouTube chatroom presentation by Chris Larkin entitled ***Plant Selection and Management in Garden Design*** that she gave at the Kiama Conference in September 2022.

It's very informative and interesting. [Here's the link.](#)

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## Move over, honeybees: Aussie native bees steal the show with unique social and foraging behaviours

**James B. Dorey**, Adjunct Associate Professor, Flinders University.

**Lucas Hearn**, Researcher, Flinders University.

**Mike Lee**, Professor in Evolutionary Biology (jointly appointed with South Australian Museum), Flinders University.

**Patricia S. Slattery**, Postgraduate Student, Flinders University.

From [\*The Conversation\*](#) 1 March 2023

Australian native bees have evolved complex social structures and foraging behaviours that help biologists answer longstanding questions, such as the origins of social behaviour, and the drivers of increased biodiversity.

In European honeybees, the queen governs the hive with her sterile female workers. Meanwhile, the males are little more than freeloaders, or hangers-on (sorry boys). But most Australian bees are different. Some are solitary. Others live in cooperative, egalitarian societies where individuals share and jointly defend a nest. There is no clear division into queen and worker castes.



*Amphylaeus morosus* makes its nests in the broken fern fronds of the rough tree fern *Cyathea australis* that are densely spread throughout the Dandenong Ranges and Central Highlands regions of Victoria, and more sporadically throughout montane habitats along the east coast of Australia. James Dorey, Flinders University.

Our new research, in the journals [Biology Letters](#) and [Apidologie](#), reveals fresh insights into the evolution and ecology of Australian bees. These creatures deserve more attention and respect, not only for the ecosystem services they provide, but for the scientific lessons they can teach us.

### Unusual bee-haviour

All bees face pressure from parasites and predators. But [we discovered](#) a unique strategy in one Australian species known as the capricious masked bee (*Amphylaeus morosus*). Of the more than 2,000 species in the highly diverse Colletidae bee family, only the capricious masked bee is known to be social. Females that choose to cooperate can dramatically improve their defence against enemies such as [parasitoid wasps](#) and [flies](#).

In these cooperative groups, one female protects the developing brood while the mother is away on foraging trips. (European honeybee queens rely on workers for such tasks, while they stay home.) The guards do not produce their own offspring. However, guarded colonies do tend to produce more offspring - and the extras are always males. However, having too many nest guards in the population can lead to an excess of males. When males greatly outnumber females, far fewer males (compared to females) will reproduce and pass on their genes. This reduces the genetic “value” of males and in turn cooperative behaviour.

Eventually, the relative benefit of cooperative nesting is diminished. We suggest this limits the frequency of the nest guard strategy, putting the brakes on further social evolution.

### The birds and the bees

When we took a closer look at the diet of other Australian colletid bees (also known as [plasterer bees](#) due to the way they smooth the walls of their nest cells with secretions that dry to a cellophane-like lining), we found it varied considerably.



Plasterer bees, the most biodiverse group of bees in Australia, only exploit a limited range of native plants - mostly in the Myrtaceae family. James Dorey.

One group in particular only visited a very restricted range of plants. This group, the euryglossines, account for almost a quarter of all Australian bee species. So why are they so fussy?

The answer may lie in the nature of the food itself. Euryglossines clearly prefer plants in the family [Myrtaceae](#). These include the gums, melaleucas, and tea trees that dominate Australian landscapes and provide massive amounts of pollen and nectar. Their shallow, brush-like flowers are also easy for small bees to access. These same distinctive flowers are heavily used by parrots such as ringnecks, lorikeets and rosellas - who also love pollen and nectar. This floral system has likely been shaped by the co-evolution of parrots and gum trees, and we suspect it was later exploited by euryglossine bees and helps account for their high species diversity. Clearly, they are both onto a good thing.

[This research](#) supports what many have suspected for years. Natives typically need other natives to flourish. Our native bees rely on our native plants, even if some have more flexible diets than others. Spend some time looking at a flowering gum and you're almost certain to see some of our tiniest but hardest-working pollinators - along with some of the brightest and loudest.

### **How to observe Australian bees**

It is all very well for expert bee nerds, like us, to tell you about the value of native species. But to really appreciate our native bees, you should try observing them for yourself: they are all around us, but often smaller and less ostentatious than European honeybees. Native bees are easy to spot, even in urban environments. Parklands, roadside verges, and even our gardens are full of them. Look for them at work pollinating flowers - they might look like little dark flies initially, but closer inspection will reveal their true bee shape.



A female neon cuckoo bee, *Thyreus nitidulus*, roosting on a stick for the night. These cuckoo bees will follow blue-banded bees to their nests and replace their egg with one of their own. Hence the name, 'cuckoo'. James Dorey.

They can be nesting in bare patches on the ground, the soft stems of tree ferns or grass trees, in the "bee hotels" made by people, or even pruned rose and hydrangea bushes. Just



check for little perfectly round holes with insects buzzing around. With a bit of patience, a cold drink, and a comfy stool or cushion, one can watch these entrances and see critters hard at work.

Social Australian stem nesting bees are surprisingly complex, even though their colonies rarely contain more than four or five females. Watch for guard bees plugging the nest entrance with their red or black abdomens, while other females go to collect food. With extra patience it is possible to see ants or tiny wasps gather around the nest entrances, waiting for an unguarded moment to attack.

Australia has more than 1,650 native bee species. We encourage you to enjoy them on flowers, in the ground, in stems, or wherever you can find them. These little animals have a lot to offer us in terms of how we understand the world, in addition to being vital parts of the ecosystem. And importantly, they are our responsibility to understand and protect.

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## Windsor Downs walk - Saturday 25 March

Jennifer Farrer

Photos Lesley Waite

The weather forecast was not very encouraging, but when the BOM site said 25% chance of one millimetre at 2 pm, nine members were prepared to risk it.

The route we took was part of the tour which Jennifer and Pip had developed for the post-conference tour last year. So we met at the entrance to McCorns Trail and wandered a few metres in to look at *Persoonia nutans*, one of several endangered plants growing in the reserve. While we were there, we also saw several plants of *Styphelia laeta* already flowering, which was quite a surprise.

We then drove to the start of the Hakea Trail. This is very aptly named as it has wall-to-wall *Hakea sericea* on both sides of the track. It wasn't flowering of course

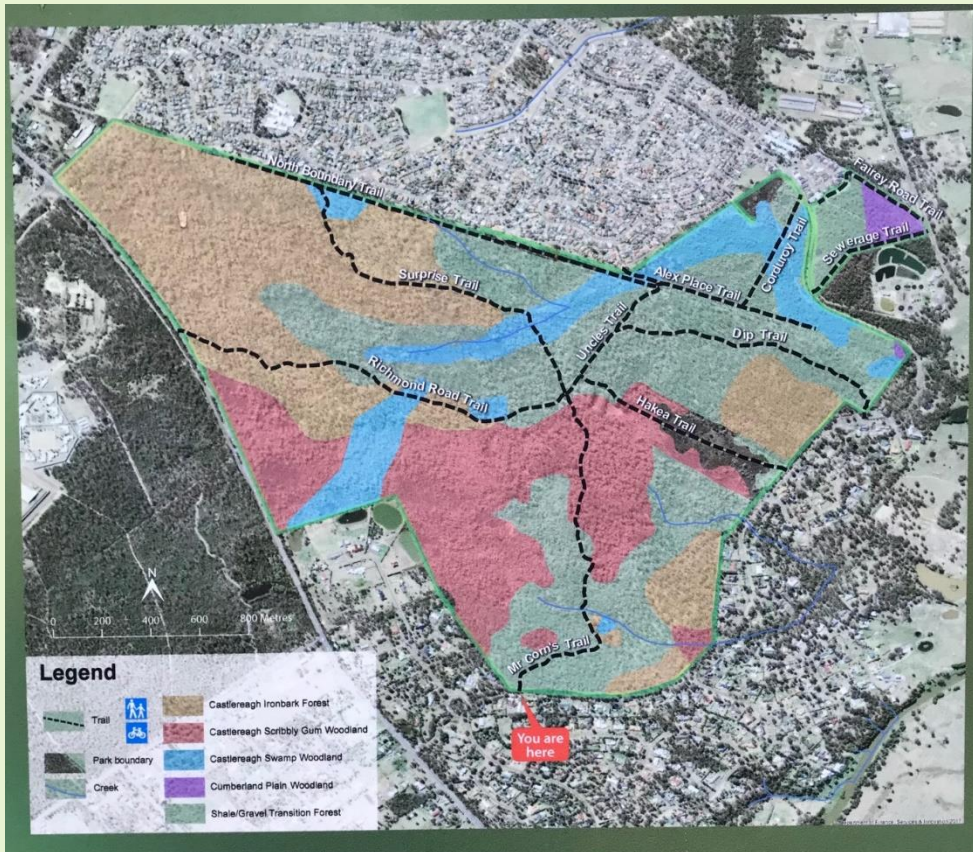
but right on

the track were large patches of *Goodenia paniculata* which made a very attractive display.

Very soon we started to see large numbers of *Darwinia tenuifolia*, another of the endangered plants in the reserve. It was also at about this time that we found that we had scored the 1 in 4 chance of rain. It was amazing how quickly the puddles started to form, so it was wet progress to our next endangered plant, *Pultenaea parviflora*.

*Persoonia nutans*





## Western Sydney

### A special part of the world

The low country of Western Sydney is known as the Cumberland Plain, and is one of the most fertile parts of Sydney's natural environment. The native vegetation of the Cumberland Plain is rich and varied, from grassy woodlands to tall forests of ironbark.

Many of these plant communities are found nowhere else on earth and they support many plants and animals that occur only in Western Sydney.

As Aboriginal country, the Cumberland Plain has been valued for its abundance of plant foods and game animals.

When British settlers arrived in 1788 they quickly took advantage of the productivity of the Cumberland Plain. Clearing for agriculture was rapid from 1800, displacing traditional Aboriginal uses with farms and fences.

Very little of the original vegetation has survived. Many unique plant and animal communities, of the Cumberland Plain, are on the verge of extinction.

### Wonderful Windsor Downs

Nature reserves play a vital role in protecting threatened communities. Windsor Downs Nature Reserve contains large, ecologically intact remnants of forests and woodlands that once covered the Cumberland Plain.

These rare plant and animal communities are under threat from urban expansion, weed invasion and rubbish dumping.

Beyond this was the wall of the dam built to provide water for the cattle which grazed here before meeting their demise at the Riverstone Meatworks. The reserve was used for grazing cattle for more than 100 years, then in 2013 it was burnt in a wildfire, so it is amazing how well the vegetation has recovered. On earlier visits, we found the area below the dam wall to be a flora hotspot, but the rain was a deterrent to closer botanising here.





We returned to our cars via the Dip Trail through Shale/ Gravel Transition Forest. There were quite a few *Melaleuca nodosa* here, as well as one of the largest *Exocarpus cupressiformis* any of us had ever seen.

Windsor Downs is a very rewarding place to visit. The trails are almost flat and there are plants to see which are unique to this part of Greater Sydney.

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*'And down by Kosciusko, where the pine-clad ridges raise  
their torn and rugged battlements on high,  
where the air is clear as crystal, and the white stars fairly blaze  
at midnight in the cold and frosty sky,  
and where around the Overflow the reed beds sweep and sway  
to the breezes, and the rolling plains are wide . . .'*

Banjo Patterson

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**Share your stories . . .**

What have you been doing?

Email me at [itcox@bigpond.com](mailto:itcox@bigpond.com) for the next *Calgaroo*.

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*In the spirit of reconciliation, we acknowledge the Traditional Custodians of our Country, the people of the Dharug Nation, whose cultures and customs have nurtured, and continue to nurture, this land since time immemorial. We honour and celebrate the spiritual, cultural and customary connections of Traditional Owners to Country and the biodiversity that forms part of that Country.*

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## **Parramatta and Hills District Group**

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***We support awareness and conservation of Australian native plants.***