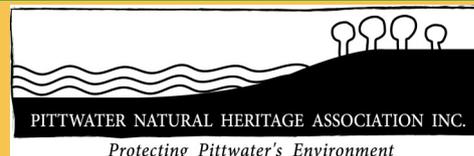


# Pittwater Nature

Issue 6 June 2021



News and stories from Bushcarers, Wildlife carers, Community and home gardens

## Rat: What's in a Name?

The very word **Rat** reminds us of dirty disgusting disease-spreading introduced pests. But our native rats do not deserve this reputation. Several species live in the Pittwater area.

The biggest is the **Australian Water Rat**, *Hydromys chrysogaster*, below. **Rakali** is now the accepted name, one of many aboriginal names for this wide-spread semi-aquatic rodent. It is much bigger, weighing up to 1.3kg, than the introduced rats: 95-340g for a Black Rat and 200-480g for a Brown Rat.

A distinguishing feature is its white-tipped tail. Despite earlier being hunted for its fur and probable destruction around Sydney Harbour when all rats were hunted to control bubonic plague between 1900 and 1925, Rakali persist around Sydney, Narrabeen Lagoon and near Careel Bay in Pittwater. Evidence is from their middens of food scraps on



the shore.

Watch this Rakali talk hosted by North Sydney Council's Bushcare Team, on March 22 2021. <https://www.youtube.com/watch?v=Qs9oWKQjgB4>

The **Australian Bush Rat** *Rattus fuscipes* (yellow footed rat), left, is terrestrial and much smaller, weighing between 50-225 g with an average of 125g. From images it's hard to distinguish from introduced rats, but an identifying feature is its much shorter tail in proportion to body length. If bent back along its body, the tail would not reach past its ears. More information: <https://australian.museum/learn/animals/mammals/bush-rat/>

Bush Rats have been reintroduced on North Head and are able to out-compete Black Rats. More here: <https://www.australianwildlife.org/strategic-partnership-at-north-head-extended-to-2022/>

We care for our natural world in the Pittwater area, by looking after bushland, caring for wildlife, producing sustainable food in community gardens, and at home.

Pittwater Natural Heritage Association (PNHA) is publishing this newsletter to help us keep in touch and encourage each other in our various volunteer activities.

We welcome your contributions. Contact us: [pnhainfo@gmail.com](mailto:pnhainfo@gmail.com) and on Facebook



The **Australian Swamp Rat** *Rattus lutreolus* was discovered in Ingleside Chase Reserve a few years ago. Weight is about 120g. Click here for some good images and more information. <https://collections.museumsvictoria.com.au/species/8459>

If you live next to bushland you may encounter a Bush Rat, but the Black and Brown rats are more likely. Be sure to keep your cat inside.

Images:

Australian Water Rat. By ZooPro - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=15816488>

Australian Bush Rat. Katrin Solmdorff

Australian Swamp Rat. David Paul. Museums Victoria

## Jacky Dragon

Peter Marshall sent us this photo of a **Jacky Dragon** *Amphibolurus muricatus* in bush at Long Reef. Jayden Walsh says that's one of the few places to see them on the Northern Beaches. Let us know if you've seen one anywhere else locally, though they're widespread in south-eastern Australia.

This lively lizard can run on its hind legs and climb trees. Its camouflage helps it hide in plain site. Average size is about 23cm.

Here's a short video with David Attenborough and battling Jacky Dragons from The BBC's **Life in Cold Blood** documentary series. Copy and paste this link into your browser:

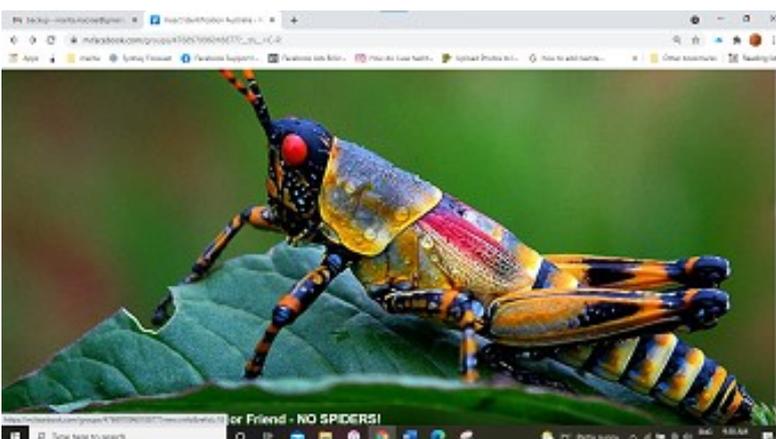
<https://youtu.be/JVUuyjpZr6w>



## Insects and other Invertebrates

With the cold weather, all seems fairly quiet on the insect front.

However, If you have an insect or other invertebrate you'd like identified, consider the public Facebook page: **Insect Identification Australia, Pest or Friend, No Spiders**. Don't be put off by the strange name.



You can post photos and ask for someone to identify what you've seen. Some real experts are behind the scenes to help. You can learn a lot from other people's photos, questions and answers. Or just put up a photo for others to enjoy. It's great to see such interest in these very important small creatures.

A recent post was a photo of Dog Vomit Slime Mould in a lawn, so the field of enquiry is quite broad despite the prejudice against spiders.

## Ku ring gai Wildflower Garden

Would you like to know more about Australian Native plants?

Why not try the Talk and Walk sessions, at Ku-ring-gai Wildflower garden in St Ives. They are organised by the Australian Plant Society, North Shore Group and held weekly on a Monday during term time from June – November.

The focus is usually around a group of flowers such as wattles, or a plant family like peas (Fabaceae), right. It includes an indoor meeting with a PowerPoint presentation, notes and specimens, followed by a walk in Ku-ring-gai Wildflower Gardens to explore the related plants in situ. The walks last about 1 to 1.5 hours and are easy/medium. Course notes are available on the internet. <https://austplants.com.au/North-Shore-Resources>



*Dillwynia floribunda*

Once a term there is a walk-only session which gives more time to explore the longer tracks in the garden like the Mueller Track. All guides and presenters are volunteers of the society.



*Darwinia fascicularis*

The sessions are free and run from 10am to about 12 noon. Participants meet at 9.45 am in Caley's Pavilion, Ku-ring-gai Wildflower Garden. If you are interested, it is essential to book your place by the Saturday prior to the walk. Please email Wendy and provide your 1) name, 2) mobile number and 3) emergency contact.

Email: [wagrimm@tpg.com.au](mailto:wagrimm@tpg.com.au) Current Covid-19 regulations apply.

[To download the 2021 Walks & Talks Program July-November click here](#)

Term 3      Spring Term

DATES – all MONDAYS	TOPICS
July 12	Gum Trees - Eucalyptus, Angophora, Corymbia (Family Myrtaceae)
July 19	Weeds & Bush regeneration
July 26	Grevillea & Hakea (Family Proteaceae)
August 2	Walk Only: East Mueller Track
August 9	Wattles (Acacia, Family Fabaceae, Subfamily Mimosoideae)
August 16	Boronia & other Family Rutaceae
August 23, return 3pm	Walk Only: Perimeter Trail: KWG to St Ives Showground
August 30	Heath plants (Family Ericaceae)
September 6	Pea shrubs & vines (Family Fabaceae, Subfamily Faboideae)
September 13	Orchids & other non-woody plants

**How about the joining the Australian Plant Society?  
Find out more here: <https://austplants.com.au/>**

## Plant Families 101— Proteaceae

### Meet the Banksia Family

The Greek god Proteus could change his shape. We don't know who had the idea of naming this plant family after this fellow, but it's apt, because the species of this family are certainly variable in appearance. Their foliage shapes and growth habits vary. Leaves can be simple, small and smooth, or tough and prickly, or dissected into fine segments. They can grow as a tree, as a large or tiny shrub and have different means of producing their seeds. What they have in common is their flower structure.

A genus is a group of related species within a plant family. The Proteaceae family has 79 genera (plural of genus); 46 of these are in Australia. Others are in South Africa and South America as the family originated before the breakup of Gondwana.

Pittwater genera include *Telopea* (Waratah), *Banksia*, *Grevillea* (Spider Flower), *Lambertia* (Mountain Devil), *Xylomelum* (Woody Pear), *Hakea* (Needlebush), *Isopogon* (Drumsticks), *Petrophile* (Conesticks), *Persoonia* (Geebung) and a few more. We don't want burden you with *too* many scientific names.



*Grevillea sericea* Pink Spider Flower



Wind-pruned Hairpin Banksia in A J Small Reserve, North Bilgola. About 40 flower spikes, each with hundreds of tiny flowers equals how many flowers?? Maths anyone?

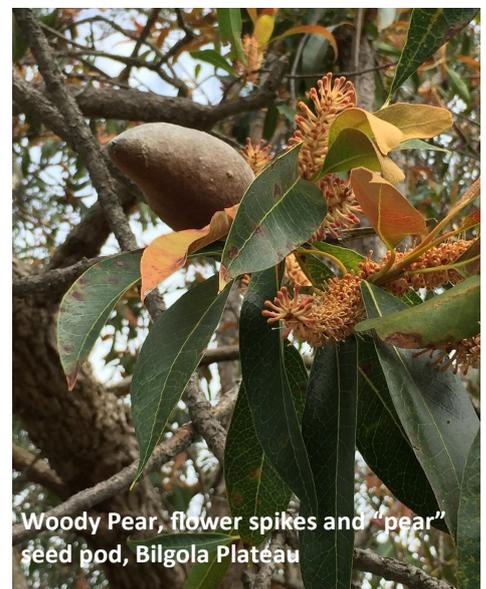


Waratah seed pods, Bahai Temple, December

Their flowers grow in groups. What looks like one Waratah or a Banksia flower is actually a tight collection of many flowers opening to their pollinators over many weeks. Only a small fraction are pollinated and produce



Macadamia flowers



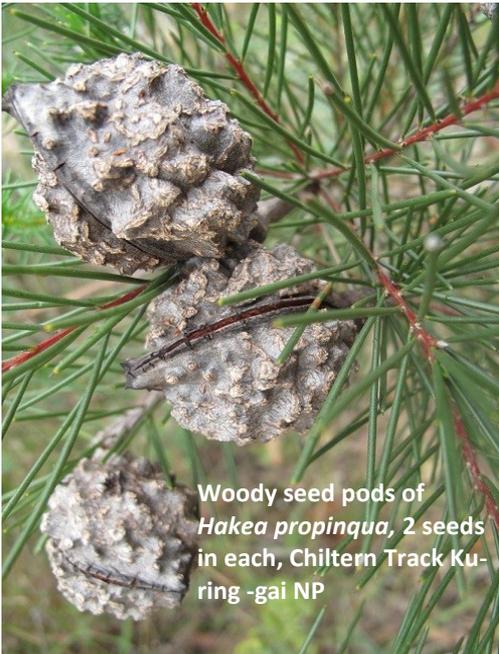
Woody Pear, flower spikes and "pear" seed pod, Bilgola Plateau

seed.

Others not native to Pittwater, but probably familiar and coming from more northern climes, will grow here:



Flowers of Pine-leaved Geebung, *Per-soonia pinifolia* and fruit like bunches of grapes, one seed in each. Ingleside.



Woody seed pods of *Hakea propinqua*, 2 seeds in each, Chiltern Track Kuring-gai NP

*Macadamia integrifolia* (its seeds are Macadamia nuts),  
 Firewheel Tree *Stenocarpus sinuatus*,  
 Silky Oak *Grevillea robusta*,  
 Ivory Curl *Buckinghamia celcissima*.

Except for Geebungs, plants in this family have cluster or proteoid roots that provide access to normally inaccessible forms of various nutrients, especially phosphorus.

Cluster roots exude acidic substances which are able to convert the otherwise inaccessible forms of nutrients into forms that the

roots can use. Right: Pink Spider flower seedling; white blobs are very fine proteoid roots



Plant fertiliser with phosphorus levels suitable for vegetables can give a fatal overdose for plants in this family.



**Bushcare is so much fun when:**

- ◇ You can see where the bush regen contractors have already been working
- ◇ You have enough patient people to do fiddly follow-up work on Morning Glory and Trad and you realise you can really make a difference
- ◇ The weather is great and you can hear an Eastern Yellow Robin up the hill
- ◇ The bushcare team is good company
- ◇ At morning tea there is cake and nature has provided a mug-holder
- ◇ A Duke of Ed. student is helping (hope for the future of bush regen as most of us are at least 60 years of age)

*Thoughts from Bangalley Head Reserve Bushcare  
 Whale Beach Rd entrance*

## Vets Learning to Care for Wildlife

When we first started Sydney Wildlife's Mobile Care Unit, one of our main objectives was for it to be a learning facility, **Lynleigh Greig** reports.

For the past few years, we have been guest presenters at the Future Vet Kids Camp in Waverley. The camp is run for kids of all ages who have an interest in becoming a veterinarian some time in the future. Learning about the treatment and handling of native wildlife is as important as learning about treating companion animals. It can be a lot more complex, however, as there are more species to know and many



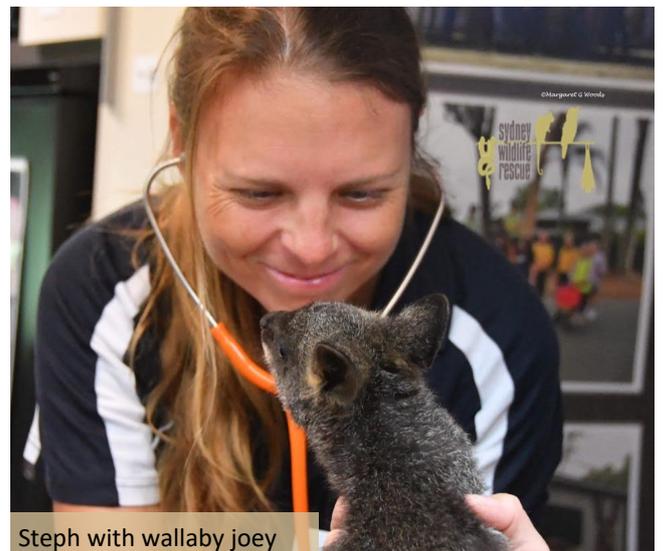
species-specific pathogens to learn about. Not to mention that wild animals are not used to being handled, so different strategies need to be implemented when examining

them. We teach the children about the various native species, the best way to restrain them, some of their common afflictions and the best methods for treatment. They also get to explore the van and chat to one of our volunteer vets.



Athena and Alex with ringtail patients

As well as teaching Future Vet Kids, we also prepare Vet Students from Sydney Uni to handle, assess and treat wildlife of all species. Our volunteer vets - Dr Margot, Dr Lou, Dr Izi and Dr Kath - are always very generous with their time and are happy to share their expertise with vet students in their final year of study.



Steph with wallaby joey

For the past few months we have thoroughly enjoyed having vet students - Athena, Alex, Aislinn and Stephanie - from the University of Sydney. They have done everything from administering parenteral fluids to snakes and x-raying lace monitors to doing faecal floats and blood tests in wallabies and birds. And there has been lots of baby possum-cuddling, too!

Being a teaching facility is one of the things we love most about providing this service to our community. One day these vet students will be in their own clinics and will already have a great appreciation for wildlife and the importance of treating them with the same compassion and care as pets with owners.

Lynleigh Greig

Photos: Margaret Woods



Vet Student Steph with Dr Izi, Dr Kath, Dr Lou and Dr Margot

## Growing Vegies at Home

Mab grows **ginger** in an old black recycling bin with many 1cm holes punched in the base. She does this with an apple corer heated over a flame.. In spring she fills the bin with a rich potting mix plus compost and some dynamic lifter, keeping it moist.

Five pieces of ginger about 4cm long from the supermarket will be the starter of the crop, pressed down on to the soil surface. The ginger stems (actually rhizomes) grow and spread sideways. Ginger likes a warm position with bright light but little direct sun. Curling leaves mean it's thirsty and suffering from too much sun.

The shoots come up in November and it grows through the summer and autumn. In winter its tall leaf stalks yellow and die. By that time the rhizomes are ready to lift and scrub in the sink and any straggly roots removed. The harvested ginger keeps well in an airy dry place. For the next crop, replenish the potting mix with fertiliser and compost. Ensure drainage is still working.

Ginger recently cost about \$55 per kilo in the supermarkets, so this is a worthwhile crop, easy to grow.



**April:**  
Leaves and  
flowers

**June:**  
The crop almost  
ready to harvest.

## Mab, the hopeful home vegie grower

***Bursaria spinosa*, also called Blackthorn, Boxthorn and Sweet Bursaria,** is a widespread medium sized shrub in NSW.

But the best place locally to see this native shrub in flower (in May) is in Mona Vale near the intersection of Mona and Water-view Streets, next to the letterbox. It's probably a remnant of the original woodland. It resprouted after being cut to the

ground a few years ago, probably because it is thorny and maybe bothered the post-man. Attractive to insects and dense habitat for small birds.

A subspecies *Bursaria spinosa subsp lasiophylla* occurs in the

Central Tablelands area above 850m elevation near Bathurst, Oberon and Hartley. Here the larva of the endangered Purple Copper Butterfly, also called Bathurst Copper Butterfly, feeds on this shrub. Its lifecycle depends also on the ant *Anonychomyra itinerans* in a mutualistic relationship. That is, the butterfly larva depends on the ant and the ant depends on the butterfly larva.

Read all about it: <https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10586>



## Brazilian Nightshade, Purple Potato Vine *Solanum seaforthianum*

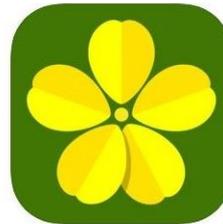
This weedy climber has trusses of purple flowers, and green berries becoming red, with many seeds in each. It is probably spread by birds. The berries are poisonous to humans. It grows to about 5m, smothering trees. **Control:** Seedlings can be uprooted and left to wither. Older plants can be cut off near ground level and painted immediately with some Round-up. Any berries should be bagged and put into the green waste bin. If it's in your garden, please get rid of it.



Gary found all these berries on just one plant near Bayview. He managed to collect this pile but many more were out of reach.

### What's That Weed? Is it a Weed?

Are you wanting to identify environmental weeds in our area? It's great to be able to do that when you're out and about.



**Environmental Weeds of Sydney** 4+  
Field Guide for Greater Sydney  
Quoll Designs  
Designed for iPad  
★★★★★ 4.8 • 27 Ratings  
Free

**Environmental Weeds of Sydney** from the App Store is an excellent free app for iPhone or Android devices.

This interactive app enables you to identify what you think is a weed by its flower, leaf, fruit, seeds, root system and stem. Alternatively, you can look at an illustrated list of weeds. It also tells you how to get rid of the weed and if there is a similar native plant.

#### PNHA's Mission Statement:

***To promote and facilitate the enhancement and understanding of the natural heritage and ecological systems within the Pittwater area.***

The PNHA vision is:

***An engaged and aware community working to conserve and enhance its natural heritage.***

**Find us: [pnha.org.au](http://pnha.org.au) and Facebook <https://www.facebook.com/PNHAaus/>**

