

## It's a Plant But Where are the Leaves?

You'd think part of the definition of a plant would be that it has leaves. Yes, but not always.

Some plants don't have leaves that you can see. Some do have small leaves but only as young seedlings.



She-oaks or Casuarina

Local examples: She-oaks or Casuarina, some Wattles and the peas Bossiaea and Jacksonia, which have leaves only as small seedlings.



Jacksonia scoparia or Dogwood

### Why is this?

Leaves are green and help the plant grow and feed by photosynthesis, but they also have tiny holes called stomates as part of that process and through these moisture escapes and can cause the plant to wilt in dry times. This can be destructive to the whole leaf – think of wilted lettuce – it doesn't recover.

Plants that live in tough conditions like our bushland have evolved ways around this risk of wilting. None, minimal or temporary leaves is one solution.

The stems of Bossiaea (image right) and Jacksonia (image bottom left) are green or grey and broadened to receive sunlight for photosynthesis. She-oak foliage is actually greenish twigs, along which leaves are tightly pressed, their tiny tips visible at the joints. Best seen with a hand lens, the number of tips around each joint varies and is a feature used to help identify the different species. In the photo (above left) you can see on the woody stem the remains of the leaves, and on the thinner twigs, the joints. The red hairy object is a



Bossiaea colopendria. No leaves, but flattened green stems. Image: Friends of Lane Cove National Park

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cluster of female She-oak flowers that will later form the little cone bearing the seeds (image top left).

Sickle or Sally Wattle *Acacia falcata* at Church Point (image right) has phyllodes, structures that have developed from the tiny petiole or stalk that connects a leaf blade to its stem.

*Jacksonia scoparia* or Dogwood when not in bloom look like a small She-oak, with leafless grey-green stems (image front page).

Wattles may have fern-like true leaves, or foliage called phyllodes, flattened, green or grey, sometimes with a mid-rib like the main vein in a true leaf. The phyllode develops in the young wattle as the petiole (the tiny stem that connects the true leaf to the stalk) widens and flattens. The plant then ceases to produce true leaves, though these may re-appear on an adult plant that is injured or diseased.



Many wattles have true leaves, with many tiny leaflets as seen below.



## New Strain of Rabbit Calicivirus

CSIRO has recently developed a new strain of calicivirus. The latest incarnation of the virus, RHD-K5, is proving to have a much higher knock-down rate (10-40%) in coastal areas than previous strains.

Northern Beaches Council is releasing this virus currently. If you and your neighbours have rabbit issues and would be willing to work collaboratively to ensure the most effective outcomes from any release of the new virus, contact Sonja Elwood, Pest Species Officer at Northern Beaches Council to get involved in rabbit control.

Phone 0424 979 907 or email

[Sonja.elwood@northernbeaches.nsw.org.au](mailto:Sonja.elwood@northernbeaches.nsw.org.au)

About this virus: <http://www.pestsmart.org.au/rhdv-k5-frequently-asked-questions/>



## Baby Tortoise

A sharp-eyed man walking along Mona Vale Beach east of the golf course spied this black blob on the sand near the water's edge. Seagulls were also having a look, with a view to a meal. He rescued it, nearby bush regenerators identified it as a baby Eastern Long-necked Tortoise and it was released into the pond on the golf course. This is a freshwater species. It's thought to have been washed through the outlet pipe from the ponds under the dunes after heavy rain. Mona Vale—16.2.17.

## Bushland Saved

Several PNHA members persuaded Northern Beaches Council to purchase 24c Walana Crescent Mona Vale on February 15. This land formerly owned by the late Mrs Marjorie Roberts is adjacent to the lower boundary of Katandra Bushland Reserve, west of Mona Vale Cemetery.

We are very pleased that this bushland area will in effect expand the bushland protected by Katandra, as bushland and its fauna are best conserved in larger areas, rather than small patches with many edges.

Though somewhat weedy at its lower area, the 1.85 ha site is mainly in excellent bushland condition.

PNHA believes that we must conserve as much bushland as possible, regardless of whether or not it contains endangered species. If we don't save what bushland remains, even species now common may become endangered. The classification of the new public land is yet to be decided.



## Freckled Ducks in Warriewood Wetlands

A first for the wetlands, this is Australia's rarest duck, not seen here before. This photo by Neil Fifer was taken from the boardwalk on Tuesday March 21. More information at <http://www.birdlife.org.au/bird-profile/freckled-duck>

## Ingleside Land Release

The non- statutory consultation phase of the Ingleside Land Release has concluded. A big thank you to all the PNHA members who made a submission as we know that a lot of submissions shows that the community cares.

PNHA is very concerned about the lack of protection for Coastal Upland Swamps within the precinct (Endangered Ecological Communities), the width and location of fauna corridors, fauna road crossings and other environmental aspects. Our submission has gone to the Department of Planning and Environment, and we wait to see if they have listened. Members can find it on our Facebook and web pages.

What next? We are expecting the Department of Planning and Environment to publish the submissions on their web-site and to prepare a submissions report which will provide feedback to the community.

## Mona Vale Rd East: extra fauna overpass promised

Following repeated submissions and lobbying from PNHA, Roads and Maritime Services have agreed to construct a small vegetated overpass on Mona Vale Rd East that will enable connectivity between bushland in Ingleside Chase Reserve to the south and a fauna corridor linking to Ku-ring-gai Chase National Park. As well, a fauna underpass will be constructed east of the Ingleside Road junction.



**A drainage culvert with ledges which enable fauna passage during periods of low flow.**

This is an improvement on their original plan and we are extremely appreciative of their decision.

However, RMS have stated that the culvert planned for Narabeen Creek is for drainage only and not suitable as a fauna underpass. In response we have put forward a proposal for low cost modifications which could enable it to fulfil both functions. They have promised to consider it so our fingers are crossed that they will agree.

We are advised that the business case for the Mona Vale Road East upgrade has been put to the government but as yet no decision on funding for the road widening project has been made.

PNHA's submissions have been forwarded to members by email and on our Facebook and web pages.

## Saving *Grevillea caleyi*

The final report for our Bahai Temple site project grant means the formal end of PNHA's grant project. We are pleased to report that during the three year period of our project, a number of *Grevillea caleyi* seedlings germinated in areas where we did our bush regeneration work.

But just try to stop us! The job's not done yet.

Office of Environment and Heritage is now funding the project. PNHA is supplying tools and co-ordinating volunteers.

The next volunteer bush regeneration session will be on 3 April.

## Northern Beaches Indian Myna Action Group

Our mini-grant from Greater Sydney Local Land Services is completed. We purchased traps, published a general brochure, a leaflet for schools, two posters and will get small cards for café tables to raise awareness of the Myna problem.

We need people to help by distributing this material. Can YOU help?



**Local Land Services**  
Greater Sydney



To date (early March) trappers have caught over 700 birds and we have lent out 60 traps.

## Mona Vale Basin Bushcare grant

PNHA received a \$12 000 Stronger Communities grant from the Council to support the bushcare group at Mona Vale Basin. This project is restoring littoral rainforest at the end of Bassett St Mona Vale. The Council is managing the site and will remove some large Coral Trees.

## New PNHA project: Control Vine Weeds along Careel Creek

Contractors have started work. Careel Creek Bushcare group works on the fourth Saturday morning of the month.

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It's a very long site, from near the Avalon Skate Park down to Careel Bay, with nasty vine weeds to tackle including Madeira, Balloon Vine, and Morning Glory.

## 120 Mona Vale Road Development Application

The Land and Environment Court directed that a conciliation conference re the DA for 120 Mona Vale Road, Warriewood, be held on site on 27 February 2017.

PNHA addressed the court, objecting to the location of several proposed lots on the south and south eastern area on steep land near Narrabeen Creek, in areas that would need bushfire hazard reduction for safety. However the steep-

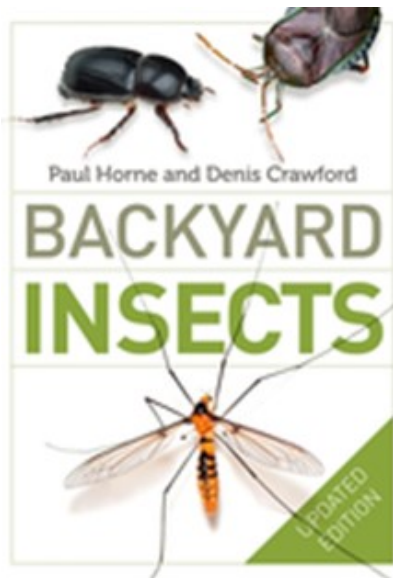
ness of the slope would preclude HR clearing. Also it would result in the loss of many trees and fauna habitat.

The court retired after the conference for confidential discussions with the Council and the applicant.

## Bushlink at Arranounbai School

Arranounbai School at Frenchs Forest enrolls students with disabilities and were seeking donations to pay for supervisors of their bushcare team, called Bushlink. We met some of the team and their families at the Northern Beaches Council Bushcare Christmas party.

PNHA has donated \$370 to Arranounbai School to help fund their bushcare work.



## Book Review

*Backyard Insects* by Paul Horne and Denis Crawford

Paperback \$24.99 Updated to include 19 new species. Published January 2016

From aphids to flies, ladybirds to wasps, insects of all shapes and sizes share our homes and gardens. Now in an updated edition, the bestselling *Backyard Insects* explores the secrets and habits of more than one hundred little critters that are common to backyard Australia. Crawling with full-colour, larger-than-life photographs for easy identification, *Backyard Insects* is an indispensable guide for nature lovers, gardeners and kids of all ages.

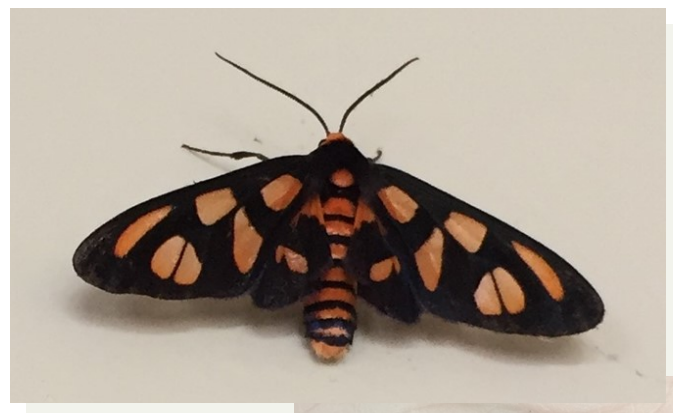
See more at: <https://www.mup.com.au/items/9780522869101#sthash.VyF0TRhm.dpuf>

## The Pale Spotted Tiger Moth

*Amata aperta* is a spectacular small moth around now (March), with a wingspan of about 2-3 cm. The bright colours warn predators that it is distasteful. This is called aposematic colouration. Many nocturnal moths, as well as diurnal ones, are patterned orange and black, colours that in the animal kingdom generally denote toxic or unpalatable properties. (Ladybird beetles offer another example). Although many aposematic moths may be toxic or distasteful, many others escape predation by mimicking the pattern of the unpalatable species, or of wasps capable of inflicting painful stings.

The black hairy larva has puzzling feeding habits. It feeds on dead Eucalypt leaves. We have found them on other leaf litter on the ground. It's also reported to feed on Bladder Saltbush, though that's not available in our area.

Reference: *Moths of Australia*. I. F. B. Common, Melbourne University Press 1990



Images:  
M. Macrae



Q: How many Powerful Owls in this photo:

A: Family of four—mum, dad and the 2 kids. Can you see them?

Image: E. Capel

Crown of Newport Reserve

November 2016



## Membership Application

I would like to join Pittwater Natural Heritage Association. I agree with the PNHA's aims: raising awareness of and preserving our unique Pittwater natural environment.

Name:..... Signed:.....

Address:..... P/Code .....

Email:..... Ph:..... Date:.....

I would like a **paper copy** OR **emailed** newsletter (circle your choice). Membership fee: \$20 or \$10 pensioner/student. To pay your membership, you can deposit electronically into our account at the Commonwealth Bank: BSB 062 208, account no.10168467. Type your surname in the reference box so we know who the membership is for. Alternatively make cheque payable to: **Pittwater Natural Heritage Association** or **PNHA**. Post cheque payable to **Pittwater Natural Heritage Association** to PNHA, PO Box 187, Avalon Beach NSW 2107.

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