

PNHA NEWS

Summer 2019 Issue 82

Pittwater Natural Heritage Association – thinking locally, acting locally



Merry Christmas and
Happy Holidays to our
Members and Friends

Christmas Bells in Waratah Rd Ingleside

PNHA Update:

Mona Vale Dunes Grant

PNHA has been successful in getting a \$12 215 grant for bush regeneration on Mona Vale Dunes. This comes from the Federal Electorates Communities Environment Program.

The plan is to employ bush regeneration contractors to clear more of the dense weeds to the south of where clearing has already been done and then plant up to 800 tubestock dunes plant species to speed up restoration of dune vegetation.

The dense dune vegetation doesn't have a huge range of plant species but it's good habitat for small birds. Willie Wagtails are nesting there at present. Silvereyes, Brown Quail, Superb Wrens, Eastern Whipbird and Yellow-tailed Black Cockatoos can be there.

The Mona Vale Dunes bushcare group works on two mornings a month, the second Saturday and the third Thursday, and have made a lot of progress. But they'd love more helpers. To help contact Michael Kneipp michael.kneipp@northernbeaches.nsw.gov.au 0417 688 492



Beach Correa , a starry flowered dune shrub



Protecting Pittwater's Environment

PNHA is on Facebook and Instagram

Want to get in touch? pnhainfo@gmail.com

INSIDE: PNHA at Avalon Market Day, Planting at Baha'i Bushcare, Hope for Trad weeders, PNHA Activities 2020, Plant and Bird book/App suggestions, How Birds Catch Fish, Fox Trapping, Some Pittwater Invertebrates, Citizen Science: Butterflies Australia, Bush Stone-curlew & Friend, Native Plant Identification Facebook page, Native Cymbidium orchid.

PNHA at Avalon Market Day, November 17 2019

Hard work and a long day but worth it for PNHA as we talk to people about our natural environment and what we are doing to care for it. As usual our weed display was a main attraction. We also had a display of invertebrate photos. See some on P.7



Above: Part of our stall: Weeds, PNHA Cards, Invertebrate information, Saving *Grevillea caleyi* at the Baha'i Temple project.

Left: Some of our market day staff: David Palmer, Robyn Hughes, Julie Bennett, Gary Harris, Bob Bennett, Jan Marshall.

WATCH THIS SPACE: Baha'i Temple – Saving *Grevillea caleyi*



A lot of rubbish dumped over many years has been removed as part of our work here, so we had a planting session on November 25. Where regeneration was unlikely, we planted 60 local tubestock trees and shrubs. More *Grevillea* seedlings keep popping elsewhere up around the site. We noticed gauze bags have been attached to more developing seed pods to catch seeds, later to be stored in the Australian PlantBank. What's this? Have a look at: <https://www.rbgsyd.nsw.gov.au/Science/Australian-plantbank>

To help with this project contact David Palmer, PNHA Secretary at pnhainfo@gmail.com for more information.

Trad, aka Wandering Jew, aka Creeping Christian: *Tradescantia fluminensis*

If you've ever tried to get rid of this weed, you'll be glad to hear help may be coming.



CSIRO scientists this year have been trialling a type of leaf fungus, called a smut, as a bio-control agent on dense Trad infestations in Victoria.

Left: Dr Louise Morin tests the leaf smut on some wandering Trad. She's pictured in the CSIRO bio-secure facility in Canberra.

We've been keen to know when trials may take place in NSW, and if PNHA can help. The answer is yes, in 2020 if funding is available for the trials.

Community groups will be asked to take part, so we'll let you know when the time comes.



Trad:

Left —
healthy

Right—
affected by
smut



What's the risk of another Cane Toad?

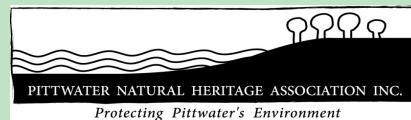
The CSIRO has two containment facilities in which to test biocontrol agents: one in Canberra (home of the leaf smut research) and one in Brisbane.

The containment facilities can only be accessed via airlocks and security systems, and are fitted with specialised filters and negative pressure to ensure imported organisms are contained. Protective clothing must also be worn while staff are inside the secure area, which is then removed prior to exiting through the airlocks. All infected material has to remain inside the secure laboratory, be destroyed in a manner that allows no survival of the disease (leaf smut, in this case) or be de-contaminated before being removed from the facility.

Tradescantia comes from South America and so does the smut that lives on it. If the smut affects no other plant it's safe to release.

This could join the bio-control agents released in our area in the last few years. Successful examples are several on **Bitou Bush** from South Africa, here a weed of dunes and coastal forests. These are Bitou Tipmoth, Bitou Seed Fly and Leaf-roller moth. The control agents do not wipe out their weed hosts. They reduce the vigour and reproduction of the host plants, but do not exterminate it. We need the agent and some of its host weed to survive as a future weed control "term deposit".

PNHA ACTIVITIES in 2020 - Sundays & Fridays



Birdwatching and plants will be the focus, led by knowledgeable guides. Slow morning strolls lasting about 2 hours on mostly bush tracks. Moderate fitness needed, not suitable for wheelchairs or strollers. Older children very welcome with carer. Bookings through **Eventbrite** from January 2020. More information: pnhainfo@gmail.com

SUNDAYS	FRIDAYS	PLACE
February 23	February 21	Irrawong Waterfall track, North Narra-been
April 26		Deep Creek Reserve, off Wakehurst Parkway
June 28	June 19	Warriewood Wetlands
August 21		Katandra Bushland Reserve, Ingleside
August - date TBC		PNHA AGM, Katandra Bushland Reserve
September 27	September 18	Chiltern Track, Ku-ring-gai NP Ingleside
October 25		Dundundra Falls Reserve, Duffys Forest

Need to know more? Some guide books and apps to consider:

Native Plants:

Field Guide to the Native plants of Sydney. Les Robinson. Area: Hawkesbury-Nepean system to north and west, and Cataract River to the south. Kangaroo Press

Native Plants of the Sydney Region—Fairley & Moore - Area: from Newcastle to Nowra and west to the dividing ranges. Allen & Unwin

Birds:

Field Guide to the Birds of Australia. Pizzey and Knight. Harper Collins.

Field Guide to the Birds of Australia. Simpson & Day . Penguin Viking.

Field Guide to Australian Birds. Michael Morcombe. Pascal Press.

The Morcombe & Stewart Guide to Birds of Australia for iPhone & iPad through the App Store

Australian Birds Guide—Gaia Guide, free app for devices but gets mixed reviews.

Articles:

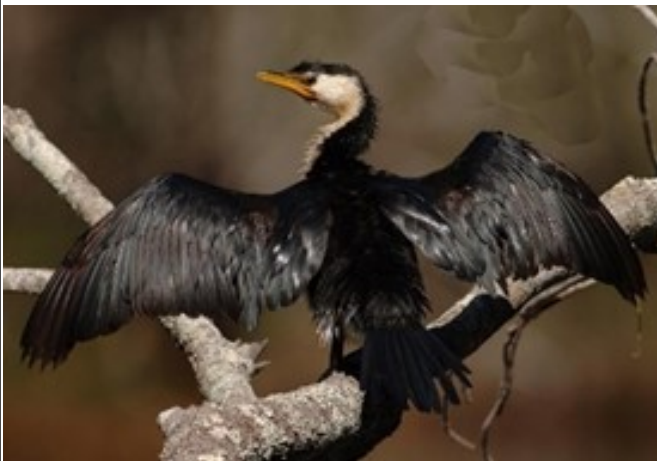
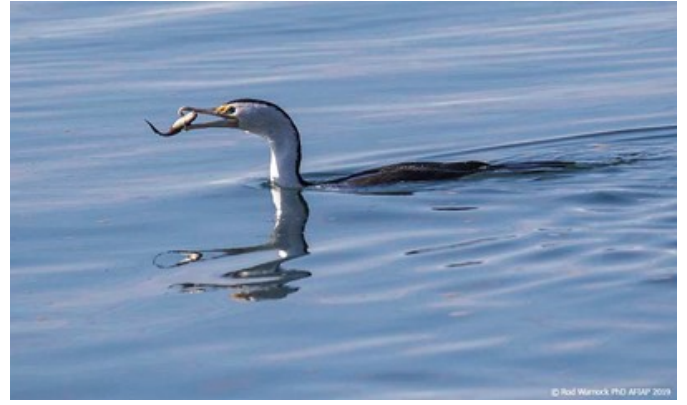
How Birds Catch Fish

How many of these methods can you observe on Pittwater and Narrabeen Lagoon?

Beaks are important: The **Little Pied Cormorant** (right and below) and **Little Black Cormorant** have hooked beaks to secure fish or other aquatic animals once caught. The **Diver's** beak (below right) is straight, used as a dagger. It spears the fish then tosses it up and swallows it. Raptors such as Eastern Osprey and White Bellied Sea Eagle tear up prey with their hooked beaks.

Feet: Webbed feet are a must for the diving and paddling birds, and talons for the raptors.

How to swallow a whole wriggling spiny fish: turn it headfirst so that spines on fins don't catch in the throat.



Keeping warm and dry: Cormorant (left) and Diver feathers get wet. Many other water-birds such as ducks have oily water-proof feathers. But too much oil in feathers could make these diving



birds too buoyant so they must sit to dry feathers with wings spread, and so keep warm.

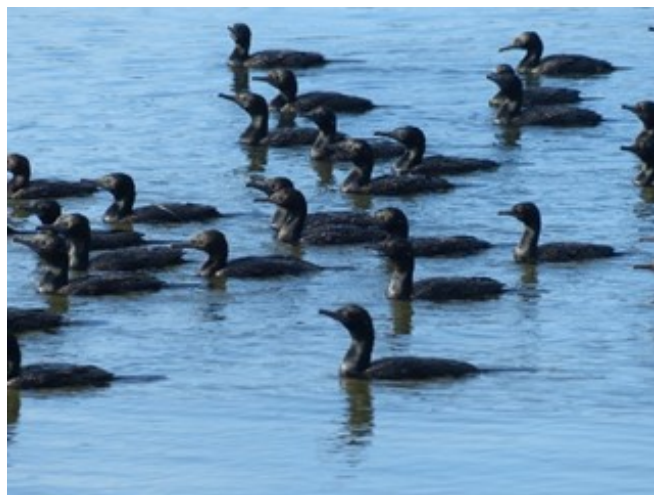
Hunting style: Pelicans and **Little Black Cormorants** hunt in cooperating flocks, the cormorants diving and chasing fish underwater, the Pelicans circling fish to scoop them into the expandable throat pouch.

Little Pied Cormorants hunt solo, diving to the seafloor after fish and crustaceans. Divers also hunt solo.



Raptors size prey with their talons. The word *raptor* comes from the Latin *rapere* – to seize. These two are solo hunters.

The **Eastern Osprey** (below) surveys the water from a height, then dives into the water talons first, sometimes going right under, using special muscles around its wings to haul itself up out of the water. On the flight back to perch or nest it holds



Above: **Little Black Cormorants:** synchronised swimming the fish in its talons so that its body is aligned lengthways with its own body, thus lessening the wind drag. The fish is torn into pieces with its strong hooked beak. An Osprey pair have built a nest on a tall light pole in Rat Park Warriewood.



The **White Bellied Sea Eagle** (below) plunges to the surface with talons outstretched almost under its chin, ready to grasp prey such as fish or occasionally Little Penguin, Eurasian Coot or carrion near the water's edge, then like the Osprey flies to a perch or nest to tear up prey.



PHOTO CREDITS:

Little Pied Cormorant with fish, Darter—Rod Warnock

Osprey , Pelicans, White Bellied Sea Eagle, Little Pied Cormorant drying wings: - Neil Fifer

Little Black Cormorant flock - Louise Egerton

Foxes

You'd be surprised how many Foxes live unnoticed in the suburbs. Many local chooks are lost to foxes. Fox destruction of native wildlife is disastrous.

Here's an instructional video for Greater Sydney residents to help manage foxes through the use of cage traps. Cage trapping is a humane method of controlling foxes safely in urban areas. Click here:

<https://www.youtube.com/watch?v=ybYyJlhFOek&feature=youtu.be>

You may be able to borrow a trap from Northern Beaches Council.



photo credit: Invasive Species CRC

PITTSBURGH INVERTEBRATES some of the spineless 97% of all animals



1

1. **Hawk Moths** are large and speedy flower pollinators with narrow swept back wings, caterpillars as big as your ring finger on maturity, changing colours as they grow. Spike on tail is not a sting. Above is **Impatiens Hawk Moth** *Theretra oldenlandiae*

2. Its caterpillars eat Impatiens Balsam (Busy Lizzy), Native Grape *Cayratia* and other plants

3. The **Pale Brown Hawk Moth** *Theretra latreillii* caterpillar also feeds on these and other plants



2



3



The **Josephs Coat Moth** (left) has a wingspan of about 7cm. It flies during the day unlike most moths. Its spectacular caterpillar is striped mostly black and white until it is about to pupate, then turns black and orange. Look for it on Native Grape.



Hiding to stay alive:

Crypsiphona ocularia moth caterpillars on Swamp Mahogany.





Who doesn't love Butterflies!

There's a new butterfly citizen science project: **Butterflies Australia**, one that aims to get everybody looking at butterflies and recording their sightings. There's a new free phone app (iOS and Android) and a website that will let you send in your sightings. It includes a free digital field guide and the website will have a feature that lets you explore the butterfly data in a number of ways on a handy map. Click here for the whole story: <https://www.butterflies.org.au/external/home>

Left: Crow butterfly on tiny flowers of a Grasstree in Angophora Reserve Avalon. Geoff Searl

Strange Friendship

Bush Stone-curlews were formerly found in the fertile, shale-soiled areas of **Sydney** - the Cumberland Plain - but are now absent and are listed as endangered in New South Wales because of land clearing practices.

Careel Bay saltmarsh has been home to these birds for a long time, but it seems now only one remains.

.Some curlews live in the Gosford /Wyang area; at least one bird banded in that area has come to live in Careel Bay in the past.

Seen here is one on a deck in the backyard of a house in John St Avalon. We understand the cat and the birds have been mates for about six years.

NOTE: This cat is an exception. Keep your cats inside.

Hear the call of the Curlew here: <https://www.youtube.com/watch?v=nB8T0dV5YNA> Photo: Elyse Cole.



What's that Plant?

NSW Native Plant Identification Facebook page

Do you have a photo of a native plant you can't identify? You can join this public Facebook group, post your photo and ask to have it identified.

The administrator is Joel Cohen, Biodiversity Sampling Technical Officer at The Royal Botanic Garden, Sydney. Other people using the page comment on the photo and you'll get expert replies.

Dictionary of Botanical Names Facebook page is another one to have a look at. The book available through the page is recently published to explain away the difficulties of botanical names.

Can't think of a Christmas present for someone? How about a PNHA Membership? Application form next page, and on our website pnha.org.au





PITTWATER NATURAL HERITAGE ASSOCIATION INC.
Protecting Pittwater's Environment



A Pittwater Orchid *Cymbidium suave* also called Snake Orchid, is an epiphyte, living on tree trunks. It flowers abundantly but briefly in November—December. Its flowers are only about 15mm across. The snake name comes from the long stems which end in tufts of leaves and flowers. Its roots grow deep down into tree hollows, feeding on rotting leaves. Its seed pods contain masses of very fine seed, spread by wind. Like other orchids it requires a partnership with a particular fungus for the seed to germinate and grow. The chances of a seed arriving in a suitable place and developing into a plant must be vanishing small.



If you have large Cymbidiums or Dendrobium orchids such as Rock Lilies, you might know the little native Dendrobium beetle that's a pest of orchids. It feasts on buds, flowers and tender new foliage.
Have no mercy.

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:.....

Newsletters are emailed to members and posted on our webpage. 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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Web page: pnha.org.au

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