



# North Head Sanctuary Foundation Inc

## Custodians of North Head

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[northheadsanctuaryfoundation.org.au](http://northheadsanctuaryfoundation.org.au)

Newsletter No 191 Sept-Oct 2024

Welcome to the first of our bi-monthly newsletters covering September-October 2024. Our next newsletter will be in your inbox early December.

### Spring Wildflower Walks

Judy Lambert

A few places are still available for the Spring wildflower walks. **Book early** to secure your space by emailing me at [twswombat505@gmail.com](mailto:twswombat505@gmail.com).

**Walk dates:** Monday 7 Oct (public holiday) 10am-12.30, Wednesday 16 Oct 10am-12.30, and Sunday 27 Oct 2-4.30pm.

### Bandicoot Heaven – volunteers needed

We are open on **Saturdays and Sundays between 10am and 4pm** providing information about North Head to visitors. If you would like to be one of our volunteers contact Judy Lambert – M: 0427217580 E: [twswombat505@gmail.com](mailto:twswombat505@gmail.com)

### A Marvel of Resilience

Nick Ewald



Before the Big Wet – Feb 2022

Photo: Peter Macinnis

The Bluefish Frog Habitat came about in response to a suggestion in 2020 from the Australian Wildlife Conservancy to the Harbour Trust that a depression holding water just south of the new Gunners carpark could be modified and managed to provide additional habitat for North Head's six endemic species of frogs. The Trust did the land forming you can see today and our NHSF volunteers took up the project with enthusiasm, placing a border of larger rocks to provide shelter at the pond edge and planting out to give cover and attract insect life.

The base of the pond consists of shale mine tailings left over from tunnelling work deep under North Head's sandstone cap. You can still see the ridges of the mullock piles behind the pond. That the pond fills with water is due to it lying almost exactly at the base of the wind-blown sand dunes which sit like a big sponge over the sandstone bedrock. Now flattened under the Old Oval, in a good rainy spell

this sand fills with water and then slowly leaks dark tannin-stained water in all directions, some of which collects in our impervious shale basin and is enjoyed by snakes, birds, passers-by and who knows what else.



Photo: Ian Evans

### Bootlace Orchids

Peter Macinnis

I became interested in Bootlace orchids two years back, when a thief ripped out the long tangling stem of one. This leafless plant relies on fungi for its nutrition, so the stolen plant could only be displayed in a vase. The plant has no chlorophyll – it gets its nutrition from fungi known as mycorrhizae - so it cannot be poked into a pot to 'strike'.

Plant/fungus interactions are very common in nature - 80%-90% of all green plants form associations with mycorrhizal fungi. This is why many plants do better when they are produced from seed germinated in soil taken from near the parent plants.



Photos: Peter Macinnis

The mycorrhizal thing has been going on for about 400 million years, as scientists learned when they etched some early plant fossils with strong acids, revealing spores and hyphae (fungal threads) rather like those of a modern genus, *Glomus*. The 85 species of *Glomus* are arbuscular mycorrhizal fungi, and that means *Erythrorchis cassythoides* gets all its food, not from photosynthesis, but by harvesting it.

Orchid seeds are tiny, as small as 0.05 mm across, and they are not well-placed to get going. If a seed lands in the right place, it links up with fungal spores or hyphae. Otherwise, it dies. All of the hard food work is done by the fungus, which draws on tree or plant roots, passing the nutrition on to the orchid. All its storage and growth happens below ground, and then in mid-September, out comes a long “bootlace-like” stalk, and then the neat little flowers.

I have yet to find what the pollination vector is for the flowers, but they are described as “sweet-smelling”, so my guess is that the plant is pollinated by an insect. What I do not know is what’s in it for the fungus? Trees and plants use the mycorrhizae as extra roots, and I suppose the fungus gets tree nutrients, but what does the fungus get for helping the orchid? And where do you find them? Join one of the Spring Wildflower Walks to find out.

## Reflections from a Volunteer

Fran Davis

Volunteering at North Head Sanctuary is a great way to help our bushland and native areas. For me it’s an opportunity to connect with nature and engage with the community which is dedicated to preserving this natural heritage. It’s also my weekly ecological & social time where I learn about unique native plants and weeds, and discover this remarkable refuge for local fauna, like these Yellow-tailed Black Cockatoos which I saw resting on an old pine tree after feasting on seeds from mature Angophoras and Banksias on the old Oval.



Photo: Fran Davis

## James Miller Wilson

Kaye Lee

The bubonic plague of 1900 resulted in 103 deaths in New South Wales, many of them children like James Miller Wilson, a pupil of Double Bay Public School, whose grave sits on the western side of the Third Cemetery. The epitaph on his weathered headstone, adorned with marble flower relief and floral surrounds reads “He cometh forth like a flower and is cut down, Job XIV 2”. Almost in sympathy, the most beautiful purple flags (*Patersonia glabrata*) have bloomed this Spring just below James’ grave. James was 7 years and three months old when taken into quarantine from Cranbrook Lodge, Rose Bay on 2 June 1900, and died the following day.

Details recorded in the State Archives Bubonic Plague Index 1900-1908, show that there were four people in the Lodge that day.



*Patersonia glabrata* with James’ grave behind. Kaye Lee



Cranbrook House & Lodge NSW State Library <sup>(1)</sup>

Given James’ age, they would likely have included his mother and father, Johannah and John D Wilson, and one of his brothers, all removed to the Quarantine Station as close contacts, but only James contracted the disease. Perhaps he was one of those children who were attracted to the payment of up to 6 pence per rat offered by many Councils to catch what was thought to be the cause of the bubonic plague.<sup>(2)</sup>

Interestingly, the Cranbrook estate of which Cranbrook Lodge was a part, was to become New South Wales Government House from 1901 until 1917. After Federation, it was decided that the first Governor General of Australia, Lord Hopetoun, would reside in Government House in Sydney when Parliament was not sitting in Melbourne, and that Cranbrook would be the official residence of the State Governor. James’ parents were perhaps employed on the estate and resided at the Lodge, which would explain why the family was removed from there to the Quarantine Station.<sup>(3)</sup>

(1) <https://collection.sl.nsw.gov.au/record/nGmk2NoY%20> downloaded 6/09/2024

(2) <https://trove.nla.gov.au/newspaper/article/61277778> downloaded 6/09/2024

<https://trove.nla.gov.au/newspaper/article/146534095> downloaded 8/09/2024

(3) [https://en.wikipedia.org/wiki/Cranbrook,\\_Bellevue\\_Hill](https://en.wikipedia.org/wiki/Cranbrook,_Bellevue_Hill) downloaded 6/09/2024