



# North Head Sanctuary Foundation

## Custodians of North Head

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### Next General Meeting – Sat 21 April at 2pm

in Bandicoot Heaven, Building 20.

Our guest speaker is Phillip Jones who will talk about his work at Australian Bronze and there will be a walk around. You can also buy some of Phil's work.



Phillip is pictured here with the plaque he designed on Sue Halmagyi's seat outside the Third Cemetery.

### Education Room - Bandicoot Heaven

Our community education room is open 10am to 4pm Saturdays and Sundays in Building 20.

We have three new card designs from paintings that were on show at "Seeing North Head" at Manly Art Gallery during December and January. One card features the vulnerable *Eucalyptus camfieldii*, Heart-leaved Stringbark.

**Thank you**, Julie for your donation to us from the sale of your prints at Manly Art Gallery.

Maybe you would like to learn about volunteering in our education room. Ask one of volunteers or contact Judy Lambert at [twsombat@optusnet.com.au](mailto:twsombat@optusnet.com.au)

### Native Plant Nursery

We have lots of maintenance to do and if you could help that would be great. There is no need to come every week, just when you can. Please join us on Tuesday or Friday morning between 8 am and 12 noon,

For more details email [northhead@fastmail.com.au](mailto:northhead@fastmail.com.au)

Or Just turn up and ask for Jenny.

### New Walking Track – Bluefish Drive

Sydney Water (North Head Wastewater Treatment Plant) have started work on a new track that will be safer for walkers to use than the road. It starts at near the corner of Darley Road and Bluefish Drive and will run parallel to Bluefish until it arrives at the entrance North Head Sanctuary carpark. Work to be finished by end of June.

### Torres Strait Islander flag



Can be seen at the Gatehouse and at North Fort.

### The lungs of a plant?

Peter Macinnis

As a biology teacher, I have always traded on the fascination that magnification has for young people. Hand lenses to microscopes: all delight them.

Flinders University has a start-up that is marketing the 'Go Micro', a gadget that clips on phones and tablets, converting them into super hand-lenses. They call them microscopes, which I consider to be hype-ish.

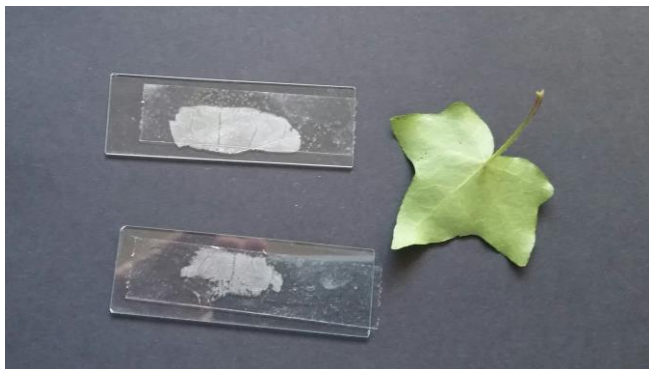
No matter: kids love them, and I think schools need these, but they also need the activities that only an old hand can provide. So I'm busy doing pro bono\* development work for them, things like seeing stomates, the pores that are found mainly on the lower surfaces of leaves.

Stomates let CO<sub>2</sub> in and oxygen and water vapour out, so plants need to control their stomates, which are very tiny—but you can even see them with a hand lens, if you choose your plant carefully.

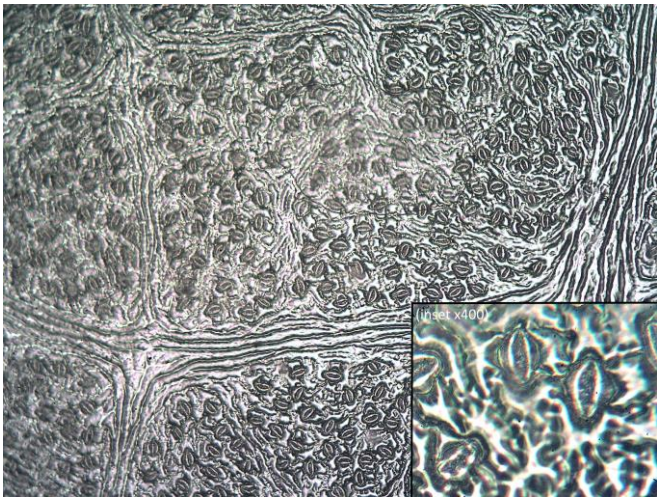


*Tradescantia pallida* is a purple-leaved garden plant. Most people know Wandering Jew, *T. albiflora*, better, but old botanists say *T. pallida* has large stomates that can be seen with a good hand lens. I set out to test methods, starting with ivy because it was available.

You need to make a 'peel'. Paint a thin layer of clear nail polish on the leaf's lower surface, about 6mm wide and 30 mm long. Let this dry for 10 minutes, then press a strip of clear sticky tape onto the nail polish. When you lift the tape, the polish layer comes away, ready to mount on a slide for viewing.

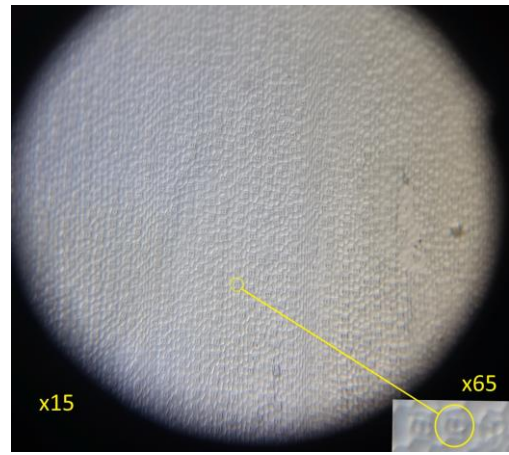


Here is what you see, though this is a bay leaf. The stomates are made of two guard cells which are like two fat lips that either swell and open, or sag and close. The bay leaf ones needed serious magnification.

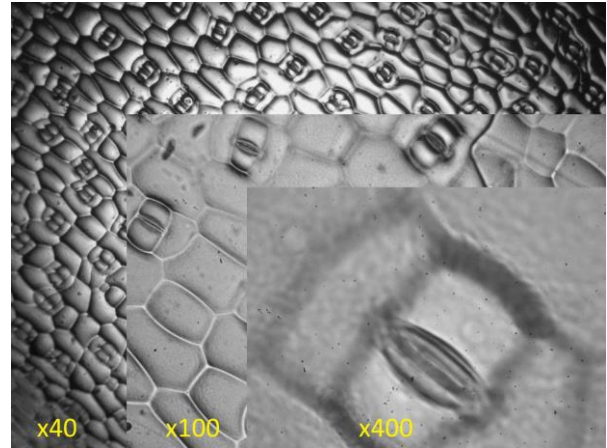


Purple *Tradescantia* is far better. The next shot shows it, mainly at 15x (that's hand lens territory!), with a small inset at 65x: both done with the clip-on (top of next column).

\* Not quite *pro bono*: Peter Macinnis will be provided with a free class set of Go Micros to use as the volunteer "visiting scientist" at Manly Vale Public School. Value of kit: ~\$300; hours spent so far: ~270; fun had: immense.



Now back to the real microscope again:



And remember kids this is something you can try at home.

### Third Cemetery

Jenny Wilson

No photos were received last month from my request in the March newsletter. Probably as one needed permission to visit the Quarantine Cemetery, when it was controlled by The Quarantine Station and later by the Army esp. during World War II.

Mrs Helen Hope had to apply for permission to erect a tombstone on the grave of her sister, Elizabeth McGregor.

### King George VII's Carriage?

Geoff Lambert

I remember when King George VI died – it was very thrilling because we could look forward to singing "God Save The Queen" at next Monday morning's school assembly. I don't sing it much these days, but I hope to live to singing "God Save The King" again one day. What has this got to with North Head? ... well, persistently unreliable sources speculate that the King's Coronation Carriage is currently taking shape up there. We shall see! And why would Prince Charles (if indeed it be he) want to be crowned as George VII? Mainly because of the bad image associated with Charles I and Charles II – including the beheading of the former, but also of the misbehaviour of the latter- not to mention an association with the plague and the Great Fire.

Remember these things when you are standing outside Westminster Abbey on the big day.

NB This isn't an April Fool's Day Joke.