



North Head Sanctuary Foundation

Custodians of North Head

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See North Head Sanctuary at its best

The bushland on North Head is coming to life after the cold winter weather. You can enjoy it at its best on a guided spring wildflower walk.

Walks will begin at the North Head Sanctuary Foundation's 'Bandicoot Heaven' (Building 20 at the old School of Artillery).

Walk dates for spring this year are:

Sunday 20 September, 10am (a QS Open Day)

Saturday 26 September, 2pm

Monday 5 October, 10am (Labour Day holiday)

Sunday 18 October, 2pm

Each will be an easy walk on good tracks and will last about 2½ hours.

Walks are free, but bookings are essential. Please contact Judy & Geoff Lambert

Email: tswombat@optusnet.com.au or call 0427 217 580

Education Room – Bandicoot Heaven

Our community education room is open 10am to 4pm Saturdays and Sundays in Building 20. Call in to have a look at our displays and our botanical cards range with many new designs. Cards are \$5 each or five for \$20.

Native Plant Nursery

From the period 1 July 2014 to 30 June 2015, we have planted almost 3000 tube stock grown in the Nursery and supplied over 300 plants to the Sydney Harbour Federation Trust for other uses.

If you would like to join us just turn up any Tuesday or Friday morning between 8am and 12 noon.

More details from Jenny at northhead@fastmail.com.au.

The Mystery of the Missing Holotype

Another Detective Story Geoff Lambert & Kaye Lee Barely had the ink dried on our July issue than the *John Barry* Affair threw up a potential solution to another long-standing North Head mystery.

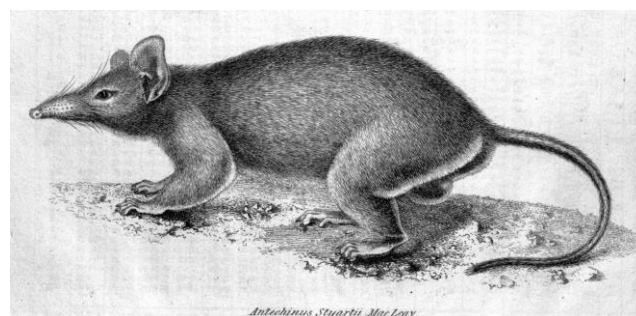
In August 1837, just after the passengers of the *John Barry* had been released from Quarantine, the Army Surgeon James Stuart (an Irishman) needed to visit the Quarantine Station once more to attend to other patients who had contracted Yellow Fever from the *John Barry* patients. Chancing to wander around Spring Cove, he came upon and killed a curious small animal never seen before by Europeans.

He made a drawing of it and took notes and afterward gave his notes to William Sharp MacLeay (the owner of Elizabeth Bay House and quite famous in NSW history).

MacLeay used these notes to write an article for the Magazine of Natural History in London and this appeared in the issue of November 1841. He named the animal *Antechinus stuartii*, after the discoverer. In this article, MacLeay stated that the actual animal had been misplaced". This was a great pity and an enduring mystery. The first-described individual of any newly-discovered species becomes the "Holotype" of the species, to which all subsequent collections are referred. If the Holotype is not preserved, no-one can be absolutely certain that subsequent discoveries are one and the same species. Instead, we have to rely on "Neotypes", which are the next-best substitute - an animal which we hope is the same species as the Holotype.

In the case of *Antechinus stuartii*, there is a Neotype at the Australian Museum - it was collected at Waterfall NSW in 1932. But is it the real McCoy? Who knows? Enter one Major W.H. Christie, another fascinating character who was to become Postmaster General for NSW. When MacLeay's article reached Port Jackson, Christie went to MacLeay with a skeleton of an *Antechinus stuartii*, which he said had been given to him by Stuart. With the skeleton in front of him, MacLeay was able to fill in the gaps of his previous description and the story broke in the Sydney Herald of 18th of June 1842.

But what happened to the skeleton (potentially the missing Holotype which Stuart must have skinned)? Stuart, by this time, was dead. Did Christie take it away with him again? Did he leave it with MacLeay? We don't know. MacLeay was an avid collector (famously of beetles) and he bequeathed his collection to his cousin, who later donated it to the University of Sydney, who used it to set up the MacLeay Museum. Perhaps the Holotype's bones are gathering dust on a shelf of this Museum? Stay tuned - the museum is now investigating!



Macleay W.S., (1841) Notice of a new genus of Mammalia discovered by J Stuart, Esq., in New South Wales, Ann. Mag. Nat. Hist., viii, p. 242, pl.vii.[Dec. Spring Cove, Sydney Harbour, i.e., Manly, N.S.W .. After J Stuart.]

Wildlife: Reporting Deaths@NorthHead

The recent spate of wildlife deaths due to fox kills has brought to attention the importance of reporting and tracking wildlife deaths at North Head. Dead animals, birds etc found on Trust land should be reported to the Trust Ranger on duty at the Gatehouse (ph 0434 652 152), or if no Ranger on duty, please report to the Security officer on duty (0433 631 689). If the dead creature is found on North Head but outside Trust land, please report it to NPWS's Sian Waythe at the Quarantine Station entrance building (Ph 0400 205 844). When you are reporting, please try to give an accurate description of when and where you found the creature so that it can be checked.

If you find a dead Long-nosed Bandicoot or Little Penguin (both endangered populations) the AWC's ecologist Dr Jennifer Anson and Sian Waythe at NPWS need to know about it as soon as possible.

If you find a dead Bandicoot or Penguin on North Head please try to get an accurate description of when and where it is found and report it either to Jennifer (Email: Jennifer.Ansan@australianwildlife.org or call 0448 124 558) or to Sian Waythe (Email: Sian.Waythe@environment.nsw.gov.au or call 0400 205 844 or 9977 6102). They need to collect the casualty and gather as much information as they can about it. The condition of the body, its size, gender etc will all be important in helping to protect and manage our endangered wildlife in the future.

More detail on procedures for handling sick, injured or dead wildlife can be obtained at Bandicoot Heaven (Building 20).

Round the twist, part 2

What's inside a shell?

Peter Macinnis

A craft activity/exploration to do with youngsters,

In nature, endocasts form when a shell or a skull fills with mud before being buried. Later, ground water may dissolve the shell or bone, just leaving the internal cast. This is a slow process, but I found a way to speed it up by filling a shell with plaster, and "dissolving" the shell with acid (the plaster does not react with acid).

Work on several large sheets of newspaper, or use a large plastic bowl as your work space. Wear rubber gloves and goggles — and remember that acid spills are best treated with lots of water, so keep water handy, and work in a place where you can splash water around if you need to.

You also need a file, a drill with a fine (no more than 2 mm) bit, some snail shells or sea shells, an old yoghurt container, water, an old teaspoon. You can buy hydrochloric acid and plaster of Paris at a hardware store.



Endocasts of a garden snail shell (left) and a sea snail shell.

Scratch the shell top with the corner of a flat file, so the drill can get a grip. Then don a gardening glove so you can hold a shell and drill a small hole in the top to let the air escape when you stuff the shell with wet plaster through the main opening.

Mix plaster and water carefully in a container until it is about as thick as cream. Keep adding water or plaster until it seems about right.

Push the wet plaster into the opening of the shell until a small 'worm' of wet plaster starts to ooze out the drill hole. Wipe the 'worm' away with a damp tissue and leave the plaster to set (about 30 minutes will do). Tip or wash any leftover plaster into a hole in the garden or into a container to go in the bin, not down the drain!!

When the plaster sets, put the shells in a plastic container and add some *dilute* (about 1 in 10) acid. When the shell reacts with the acid, there may be bubbles and foam, so don't fill the beaker more than half-way, and sit the container in a large plastic bowl.

With weak acid, you may need to wash out the container and add more dilute acid on the second and third day. Put everything in a safe place (think about pets, children, unaware adults, wind gusts, and think about what the acid will spill onto if the container tips over).

Wear the rubber gloves when you take the plaster out, once all the shell has gone. What you do now with your trophy is up to you.

Third Cemetery

Jenny Wilson

Charles Cornelius worked at the Quarantine Station as Assistant Storekeeper. Three of his children are buried in the Third Cemetery.

Violet Cornelius was five weeks old when she died of Whooping cough-Convulsions on 9 November 1891.

Sydney James Cornelius was 20 months old when he died on 30 May 1898.

Charles Edward Cornelius Jnr was nine years old when he died of Scarlet Fever on 3 July 1902.