CALEYI

Australian Plants SOCIETY NSW

NORTHERN BEACHES GROUP

austplants.com.au/northern-beaches

November 2021

Australian Plants Society Northern Beaches
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APS Northern Beaches Group acknowledges the Traditional Owners of the land on which our activities take place.
We pay our respects to Elders past, present and emerging, and recognise the continuing connection to lands, waters and communities.

CALENDAR

APS Northern Beaches walk Saturday 20th November, 2021 **Slades Trail, Duffy's Forest**. To register and receive full details please contact Anne Gray annepsgray@optushome.com.au. NB. We are required to check everyone's vaccination certificate at the the start of the walk (either digital or printed form).

We hope that APS Northern Beaches meetings will resume soon so keep an eye on your email inbox.

Many thanks to our wonderful contributors - Penny Hunstead, Russell Beardmore, Georgine Jakobi, Anne Gray, Marita Macrae and David Drage.

If you have any photographs, articles, links or suggestions for Caleyi please feel free to send to/contact me Jane March march@ozemail.com.au or 0407 220 380.

COOYONG-AUMUNA TRAIL, TERREY HILLS

Penny Hunstead

On Saturday, 16th October at 9.30. Thirteen of us met for the Cooyong-Aumuna walk. We had fine, but very windy weather.

For the first 100 metres of the walk, the dominant species, either side of the track, were the weedy plants, *Aristea ecklonii, Lantana camara, Ligustrum sinense* (Narrow leaf Privet), *Ageratina adenophora* (Crofton weed), *Lonicera sp*. (Honeysuckle), *Ranunculus sp*. (Buttercup) and *Ehrharta erecta* (Veldt grass). These species were obviously introduced from properties, uphill on Cooyong Road.

50 metres in, we crossed little Neverfail Creek, which tumbled down in a series of cascades to Kierans Creek. Here, many *Callicoma serratifolia* , in full flower, lined the creek. The walk, from there on, was an easy gradient, if a little rocky underfoot.

The first part of the walk was through tall forest. The dominant Eucalypt and Angophora species included *Eucalyptus paniculata, E. pilularis, E. piperita* and *Angophora costata*. As we walked westward, the land on our left hand side, fell steeply into the Kierans Creek Gully. On the right hand side, the hill was composed of a magnificent outcrop of huge boulders, many of which were trackside and covered with many species of lichens . The dominant tall shrub species, as understory of the Eucalypts, included *Acacia elata, Ceratopetalum gummiferum, Banksia serrata, Dodonea triquetra, Banksia spinulosa, Viminaria juncea, Hakea sericea, Grevillea linearifolia, Persoonia levis, Dillwynia retorta* and *Phyllota phylicoides* .

Smaller species included *Dampiera purpurea, Comesperma ericinum, Pimelea linifolia, Billardiera scandens, Calochilus sp., Mitrasacme polymorpha, Zieria pilosa, Epacris longiflora* and *Drachophyllum secundum*. A lone *Telopea speciosissima* was in flower. In this Eucalypt forest, from the hilltop, to the gully, there was an abundance *Xanthorrhoea australis* plants.


Dampiera purpurea. pic: Russell Beardmore


Comesperma ericinum. pic: RB


Pimelia linifolia. pic: RB


Billiardiera scandens. pic: RB


Epacris longifolia. pic: GJ


Viminaria juncea. pic: RB

At the top of a small hill we came into an area of heath. Here we found *Eucalyptus haemastoma, Darwinia fascicularis, Dampiera stricta, Grevillea buxifolia* and *Lambertia formosa*, all in flower. It has been noted by botanists, that in recent years, there has been a dearth of fruit (the so - called Mountain Devils !) on the Lambertia plants, throughout the Sydney Region. No fruit were seen on the Lambertias along our walk.


Kunzea capitata. pic: RB


Lambertia formosa. pic: Ed.

Further on, there was a boggy area, with *Gahnia sieberiana, Kunzea capitata, Kunzea ambigua, Callistemon linearis* and *Drosera spathulata.*

Our walk ended at an area of forest, however, the track continues for another 8 kilometres. Not a walk for our group !


Cooyong walk.pic: Georgine Jakobi

It was observed that the use of this track by horse riders had contributed to the spread of the Cooyong Road weed species. Piles of manure were evident along the track .

We assembled at a little park near the Terrey Hills shopping centre, for morning tea.

MORE SMALL TREASURES FROM THE WALK.


Calochilus padulosus. pic: RB


Stylidium graminifolium. pic: GJ


Lycopodium deuterodensum. pic:Ed.


Leucopogon amplexicaulis. pic: Marita Macrae

SOME NORTHERN BEACHES ORCHIDS

Until two years ago, I had taken no interest in our ground orchids. And then last year, a friend found some and pointed them out to me - some beardies - and I was hooked! This year, another friend has become an orchid junkie and goes to considerable lengths to find them and tell me where to look. I would I like to share some with you.

The Caladenias are beautiful little things - I was with friends who found both the lovely pink *C.carnea*, with it's tiger stripes in the throat,

and the white *C.catenata*, on tracks behind Duffy's Forest.

I have seen the "flying duck" - *Caleana major* - in the North Head cemetery - so much complexity in such a tiny thing.

And then there are the "beardies" - oh my goodness! I was blown away when I was introduced to my first one on North Head - *Calochilus campestris*.

I have since added the red beard, *C.paludosa*, to the list.

Cryptostylis erecta was at Deep Creek - again I was guided to the spot.

All words and photographs Russell Beardmore

Why are these things so hard to see? *C.subulata* is in a patch at North Head. I love the donkey orchids.

My orchid hunting friend phoned me a few weeks ago to say that she had located a large group of them near a water tower on the top of a hill behind Ingleside, hardly a first choice place to find orchids. I found the spot and suddenly there were donkey orchids everywhere - *Diuris aurea*.

The rare climbing orchid, *Erythrorchis cassythoides*, occurs in a number of places on North Head. It can climb up a tree to a height of a couple of metres - very impressive.

Glossidia minor is a pretty little thing, seen on Kuringai National Park tracks.

Finally, the magnificent sun orchid, *Thelymitra ixioides*. This one was beside a track above Manly Dam.

I guess I am now hooked on orchids and I know there is a whole world of them out there, waiting for me to see them or, more likely, to be shown where they are by one of my orchid hunting friends.

All words and photographs Russell Beardmore

VIDEOS OF NORTHERN BEACHES BY PAUL NICHOLSON RGB.

David Drage gets the emails that Paul Nicholson issues for the guides at RBG in Sydney and he includes links to short (2 - 4 mins) videos that he records. They are usually of bush or forest in the Northern Beaches area which is his home ground. Below are the links to two of these videos. Cheers David.

https://youtu.be/gHPBO6iUHgI North Head in October
https://youtu.be/JBdbsZZI584 Duffy's Forest and West Head part 2

Paul Nicholson
Manager Volunteer Programs
Botanic Gardens Greater Sydney

EIGHT GEOGRAPHICAL FEATURES NAMED IN 1805 COULD GET OFFICIAL RECOGNITION

The Geographical Names Board is considering eight place names first penned in 1805 by respected naturalist George Caley

NewslocalManly Daily October 22, 2021 John Morcombe

The mouth of Deep Creek and part of the northern shore of Narrabeen Lagoon. Photo Northern Beaches Library Manly

In February 1805, naturalist George Caley hiked for five days from Pennant Hills to Narrabeen and back, almost certainly accompanied by his Aboriginal assistant, Daniel Moowattin. For most of the way, Caley and Moowattin walked in straight lines, rather than following the most convenient route. Caley would decide which compass bearing he was going to walk and estimate the distance he had walked before setting off on a new bearing, so the route the pair followed was largely up hill and down dale.

While that route might have been hard to walk, Caley's use of compass bearings and his logging of them in his journal makes it easier for modern researchers to follow the route the pair took, aided by descriptions of the country they were traversing that Caley logged in his journal.

In 2018, Belrose resident and retired architect Donal Carr contacted the Geographical Names Board (GNB) and proposed names for eight geographical features on the northern beaches that Caley either named in 1805 or referred to in his journal.

Before the GNB can assign an official name to a feature, it must ensure that the owner or manager of the land on which that feature is located has been consulted and their endorsement gained.

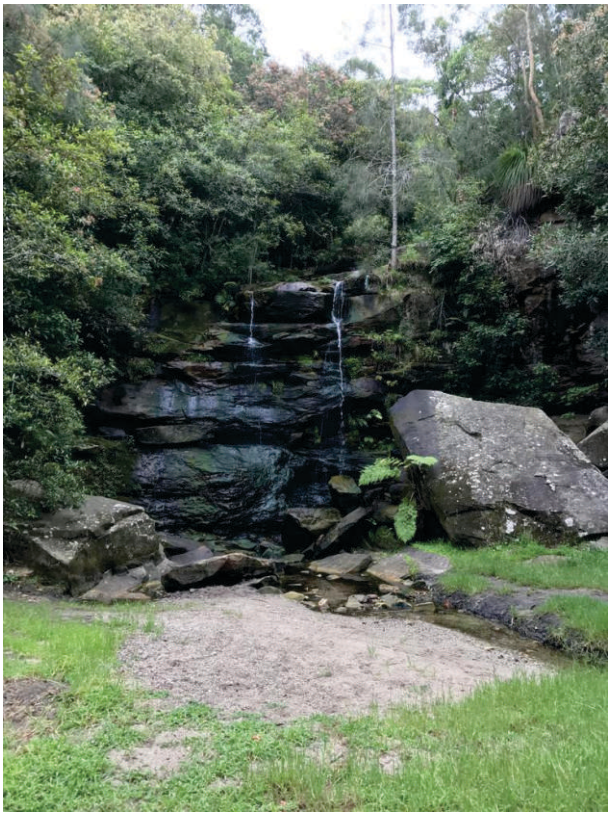
Three of the eight features are on Crown land that is managed by Northern Beaches Council, so last month the council voted to seek community input on the proposed names of those three features and to assist the GNB investigate the five features on land not owned or managed by the council.

The freshwater wetland west of Deep Creek in what is proposed to be named Brush Hill Reserve

The three sites on Crown land managed by the council – and their proposed names – are Sea Sight Reserve, adjacent to Sydney Water's reservoirs at Belrose about 100m east of the intersection of Forest Way and Crozier Rd; Caley Falls for the cascades near the intersection at Oxford Falls near the intersection of Morgan Rd and Kellys Way (not to be confused with Oxford Falls); and Thick Brush Reserve for the patch of bushland between Deep Creek and Middle Creek in what many think is the suburb of Narrabeen but is actually the eastern end of Ingleside.

The five other features and their proposed names are: Southern Sister, a hill about 300m south-west of the intersection of Northcott Rd and Macquarie St at Cromer that is owned by the Lands Department; Northern Sister, a hill about 330m west of the intersection of Northcott Rd and Macquarie St at Cromer that is owned by the Metropolitan Local Aboriginal Land Council; Thick Brush Hill, a hill about 1km west of the Wakehurst Parkway bridge over Deep Creek that is within Garigal National Park and under the control of the National Parks and Wildlife Service; Sea Sight Hill, a hill about 300m south of the intersection of Forest Way and Crozier Rd at Belrose that is owned by Sydney Water and; Saw the Sea Hill, a hill south of the intersection of Forest Way and Garigal Rd at Belrose that is in private ownership.

George Caley was born in 1770, the son of a horse dealer and he worked in his father's stables.



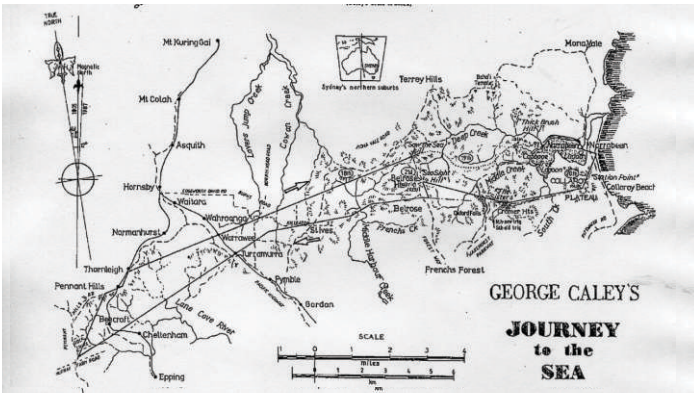
Deep Creek Falls. Photo Manly Daily

His interest in herbal remedies to treat horses grew into a broader interest in botany and he studied Latin to become familiar with the terms and scientific names in botanical publications.

Essentially self-taught, Caley petitioned Sir Joseph Banks, the botanist who accompanied Lieutenant James Cook when the latter explored the Pacific and discovered the east coast of Australia in 1770, to collect plants in Australia for Banks and for Kew Gardens as an employee of Banks.

After several attempts, Caley got what he sought and in 1800 arrived in Sydney and took up residence in the new botanical gardens at Parramatta.He made numerous expeditions in search of new specimens of native plants, including to the Blue Mountains.

Daniel Moowattin was born about 1791 near Parramatta and was adopted as an orphan by a white family. He is thought to have begun acting as Caley's assistant about 1804 and lived in Caley's cottage at Parramatta.



Map of the route taken by Caley between Pennant Hills and Narrabeen drawn by Alan Andrews

On February 18, 1805, Caley and Moowattin set out from Pennant Hills to walk to Narrabeen. The pair crossed the head of the Lane Cove River, Cowan Creek and Middle Creek and stopped for the night at Belrose.

The following morning Caley wrote in his journal that he reached a place – a hill south of the intersection of Forest Way and Garigal Rd at Belrose – from which he could see the sea, hence the proposal to name the spot Saw the Sea Hill.

After camping the night in the Deep Creek Valley, the pair headed further east and came to another hill – about 1km west of the Wakehurst Parkway bridge over Deep Creek – that he called Thick Brush Hill, hence the proposal to name it Thick Brush Hill and the unnamed reserve below it to Thick Brush Reserve.

Part of the cascades at Oxford Falls that could be officially named Caley Falls. Photo Manly Daily

The pair descended towards Narrabeen Lagoon, which Caley named Cabbage Tree Lagoon, and then headed towards the sea at Narrabeen, although by this time Caley was unwell and he didn't write anything in his journal until he reached the sea.

The following day – February 21 – rather than take the easy route around the southern side of the lagoon, Caley and Moowattin climbed to the top of Collaroy Plateau. Heading west across the plateau, Caley saw "Two hills, which I shall call the sisters" and traversed these two hills at Cromer – a northern one and a southern one, hence the proposal to name the hills Northern Sister and Southern Sister.

The pair then entered the Oxford Falls Valley and "crossed a valley in which was a fine rill of water, forming an immense number of cascades" no doubt including the cascades near the intersection of Morgan Rd and Kellys Way, hence the proposal to name them Caley Falls.

The following day, the pair reached the ridge at Belrose and late the following day reached a hill a hill about 300m south of the intersection of Forest Way and Crozier Rd, immediately north of Glenaeon Retirement Village, that Caley called Sea Sight Hill.

The following day – February 22 – Caley and Moowattin returned to Pennant Hills.

One of the plants Caley collected on his five-day "very rough and fatiguing journey" is now called *Grevillea caleyi* – Caley's grevillea – and is listed as critically endangered.

Grevillea caleyi. Photo Anne Gray

Caley returned to England in 1810, taking with him Daniel Moowattin.

Also on the ship leaving Sydney was the recently-deposed governor William Bligh, of Bounty fame.

LONG BEFORE TREES OVERTOOK THE LAND, EARTH WAS COVERED BY GIANT MUSHROOMS

24 FEET TALL AND THREE FEET WIDE, THESE GIANT SPIRES DOTTED THE ANCIENT LANDSCAPE

www.smithsonianmag.com July 17, 2013 Colin Schultz

Digging up a Prototaxites fossil University of Chicago

From around 420 to 350 million years ago, when land plants were still the relatively new kids on the evolutionary block and "the tallest trees stood just a few feet high," giant spires of life poked from the Earth. "The ancient organism boasted trunks up to 24 feet (8 meters) high and as wide as three feet (one meter)," said National Geographic in 2007. With the help of a fossil dug up in Saudi Arabia scientists finally figured out what the giant creature was: a fungus. (We think.)

The towering fungus spires would have stood out against a landscape scarce of such giants, said New Scientist in 2007.

"A 6-metre fungus would be odd enough in the modern world, but at least we are used to trees quite a bit bigger," says Boyce. "Plants at that time were a few feet tall, invertebrate animals were small, and there were no terrestrial vertebrates. This fossil would have been all the more striking in such a diminutive landscape."

Fossils of the organisms, known as Prototaxites, had peppered the paleontological findings of the past century and a half, ever since they were first discovered by a Canadian in 1859. But despite the fossil records, no one could figure out what the heck these giant spires were. The University of Chicago:

For the next 130 years, debate raged. Some scientists called Prototaxites a lichen, others a fungus, and still others clung to the notion that it was some kind of tree. "The problem is that when you look up close at the anatomy, it's evocative of a lot of different things, but it's diagnostic of nothing," says Boyce, an associate professor in geophysical sciences and the Committee on Evolutionary Biology. "And it's so damn big that when whenever someone says it'ssomething, everyone else's hackles get up: 'How could you have a lichen 20 feet tall?'"

That all changed in 2007 when a study came out that concluded the spires were a fungus, like a gigantic early mushroom.

But not everyone was sold on the idea that Prototaxites was an early fungus. No one's questioning the spires' existence—people just have trouble trying to imagine that such a huge structure could be a fungus. Researchers trying to refute the fungus idea thought that Prototaxites spires were gigantic mats of liverworts that had somehow rolled up. But in a follow-up study, the scientists who had proposed the fungus idea doubled down on their claim. So science is messy, and despite more than a century of digging, we still don't really know, for sure, what these huge spires that dominated the ancient Earth really were.

But even though the spire-like mushrooms of yore—or whatever they were—are long gone, don't feel too bad for funguskind. The largest organism on Earth, says ABC, is still a huge fungal mat, a single organism spread over 2,200 acres of forest in eastern Oregon.

Colin Schultz

Colin Schultz is a freelance science writer and editor based in Toronto, Canada. He blogs for Smart News and contributes to the American Geophysical Union. He has a B.Sc. in physical science and philosophy, and a M.A. in journalism.

ONE MORE PIC FROM THE OCTOBER WALK

Telopea speciosissima. Photograph Georgine Jakobi

The ANPSA 2022 Biennial Conference dates are Saturday 10 September to Friday 16 September 2022 at the Kiama Pavilion.

The theme is Australian flora, past present and future.

We will explore the flora of thousands of years ago to the present day and the world of the future!

We are hosting tours pre- and/or post-conference to beautiful places in NSW, like the South Coast, Blue Mountains, Lord Howe Island, Warrumbungles/Pilliga and Sydney.

We kick off the conference on the Saturday 10 September, with a complimentary tour of the Kiama region, followed by a Market fair - a combined farmers market and native plant sale - on the Sunday and then conference sessions and excursions from the Monday to the Friday.