

CALEYI



NORTHERN BEACHES GROUP austplants.com.au/northern-beaches

January/February 2023

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 meeting Thursday February 2, 2023.

7.15 pm. Lesser plant family. **Pittosporaceae - Anne Gray.**

7.30 pm. **Presentation Stuart Read** "A history of garden design using Australian native plants (1788-now)".

8.30 pm Committee meeting.

Supper. Georgine & Jane

APS Northern Beaches Wednesday February 22, 2023 at 10.30 am visit **Royal Botanic Gardens Sydney.** **Paul Nicholson** continues our education with "**Plants in Peril**" about rare and threatened plants and plant communities. Registration essential with Anne Gray 0466 309 181 or annepsgray@optushome.com.au

Many thanks to David Drage and Julia Tomkinson for their Southern Highland report and to Malcolm Fisher and Liam Carroll for permission to republish Mal's inspiring Tawny Frogmouth article on re-wilding.

Jane March march@ozemail.com.au 0407 220 380.

2022 END OF YEAR CELEBRATION

On Saturday December 10, 2022, sixteen members enjoyed a delicious lunch on a sparkling Summer day at Stony Range.



Mal's Wild Side

RE-WILDING A NORTHERN BEACHES BACKYARD

Words Mal Fisher previously published in The Tawny Frogmouth Edition 24 January 2023.

When I first came to Australia from the UK, I had a fondness for the environment but knew virtually nothing about Australian nature. Years later, when I moved from inner city living into a suburban house with a backyard, something special happened. Fascinating visitors such as Blue Tongue Lizards, Leaf Tailed Geckos and Possums provided magical wildlife encounters and my conservation passion, long suppressed, became reignited. As a result, when fragile bushland was threatened by a development nearby, I joined an action group. And, when the local council began planting native plants along a degraded creek line, I started to sit up and take notice.



Juvenile leaf-tailed gecko

When the 'windows of awareness' gradually began to open up, I realised that I needed to acquire some knowledge of native plants and environmental weeds. I really wanted to plant some genuine natives...and not the hybrid ones with showy flowers that you find in Bunnings. Later I discovered that, in Sydney, each suburb has its own original suite of endemic native plants which are vital in supporting local biodiversity. For example, there are nearly 1,000 wattles (*Acacias*) native to this continent but less than 30 were endemic to my area.

It subsequently dawned on me that almost every garden in my street had no indigenous plants at all. What was worse, many of the plant species visible, such as Agapanthus, Cotoneaster and Privet were invasive weeds which spread into bushland reserves and actually caused harm. The irony was that none of the local plant shops even sold species which belonged in the area. To find them you had to travel to obscure specialist outlets or wait for the occasional Council native plant 'giveaway'.

Something had gone horribly awry in this city of Sydney. I realised that the original rich biodiversity had largely been scraped off the face of the earth, just like the indigenous people who once occupied this unique place. Meanwhile the current population seemed overwhelmingly unaware and unconcerned.

Amazingly, the Sydney area has more native plant species than the whole of the UK. They have a subtle, fragile beauty and have evolved both to live on the nutrient poor "Hawkesbury Sandstone" soils and adapt to climatic extremes. But try telling that to the gardening commentators in the media. Unfortunately, growing local natives is not good business as it doesn't profit multi-national fertiliser, pesticide or horticulture interests.

I realised that my new philosophy was to do the polar opposite of what the so called "Garden Gurus" were advocating. My plan was to remove all "foreign specimens" that were not of habitat value for local wildlife. I would plant species that were endemic to my area (trees, shrubs, groundcovers, grasses); identify any remnant natives and carefully retain them; remove weeds by hand and commit to never using commercial fertilizers, pesticides or fungicides. I might occasionally use a weed killer made up of 99% white vinegar and 1% detergent.

Interestingly, my neighbours remember when my standard "quarter acre" backyard contained only a solitary lemon tree (which was given a stay of execution) and little else. But past decades have seen various plantings and re-growth. The house was built on remnant bushland in the 1920's and since then suburbia has filled in most of the remaining undisturbed



Hibbertia scandens

natural areas in the neighbourhood. I often think that what is now happening to the Amazon rainforest in terms of land clearing, happened in this very place, not so long ago.

At this stage I should recommend an excellent book "**Field Guide to the Native Plants of Sydney**" By **Les Robinson**, which helped guide my progress. This amazing work contains invaluable information on our native flora including traditional Aboriginal uses for "bush tucker" and medicine.

My garden contained a large lawn area of Buffalo grass, several Radiata Pines, a smattering of eclectic garden species and a few natives. On the edge of the lawn there was actually some naturally occurring native grass *Microlaena Stipoedes*, some native Geranium (*Geranium Homeanum*) and some native Violets (*Viola Hederacea*) plus some naturally occurring *Commelina Cyanea* (which was eaten by early European pioneers to prevent Scurvy).

A few years beforehand, I had followed the current trend and planted a vegetable garden, but I decided that even this had to go, and it was ultimately replaced by natural vegetation. Luckily there are organic markets nearby for delicious supplies and also a wonderful community garden when I get the urge to plant more veggies.

It's been a gradual transition but over a few years a large area of lawn has been dug out and the native grass has taken over. A smaller area of Buffalo Grass was replaced with a groundcover called *Dichondra Repens*.

I no longer have use for a lawn mower! Endemic species of *Grevillea*, *Hakea*, *Correa*, *Banksia*, *Persoonia*, *Angophora*, *Eucalyptus*, *Bracken* and *Blady Grass* etc are growing well and providing food and habitat for wildlife. Additional accommodation has been provided in the form of various nesting boxes.

Insects such as Blue Banded Bees, Mud Dauber wasps and Golden Orb spiders are proliferating. A fishpond has been transformed into a frog habitat which has also spawned an abundance of Spectacular Dragon Flies.

A ban on toxic substances means that butterflies and cicadas can fly around more safely. Caterpillars are allowed to chomp away to their heart's content. This type of garden requires virtually no watering; falling leaves don't have to be swept away (as they provide natural mulch) and the local possums kindly provide their own brand of proprietary fertilisers.

I have also converted the "nature strip" of foreign grasses and weeds in the front of the house into a mini habitat area with *Lomandras*, *Dianellas* and trees. Again, this is now a mow free zone.

American Gardener and Writer Benjamin Vogt struck a chord with me when he wrote: "We need to stop gardening solely for ourselves and see the incredible, beautiful, soul-magnifying existence that happens when we open up our gardens to the rest of the local environment by using native plants. We believe in giving to the needy and poor of our own species, and to other causes near our hearts, why not the birds, insect pollinators and amphibians in the gardens we supposedly cherish so much?"



Hardenbergia sp.

As the years go by, the native garden becomes more and more established and only occasional hand weeding is needed. Additional species are occasionally added from a nearby native plant nursery where volunteers propagate tube stock with seed collected from nearby bushland reserves. I sometimes try this myself with mixed results!

The "re-wilded" suburban backyard has provided greater biodiversity, a better connection to nature and more enjoyment whilst it has removed the time, cost, and energy of mowing, fertilizing and "manicuring". It's the ultimate "win win" gardening experience!!

RAIN STOPS PLAY

David Drage and Julia Tompkinson



Julia and I were fortunate to be able to attend the APS NSW Get-together for 2022 which was hosted, very competently, by the Southern Highlands Group on the weekend of 12th and 13th of November. The venue for registration and the Saturday morning talk by Dan Clarke, APS NSW Conservation Officer and environmentalist, on the Vegetation of the Wingecarribee Area, was the Exeter Village Hall. This is a heritage listed building, constructed in 1902 as the School of Arts, and restored for its 100th birthday in 2002. It has been extended to include a second function room and commercial kitchen at the rear, but the front part of the building is largely original. The talk was held in this old section of the Hall.

The details of the Get-together have been reported elsewhere so I will not repeat them here but will describe one walk that we did – just. This was a walk in the Morton National Park via the Gullies Road entry close to Bundanoon and, for my benefit, we walked on a level, flat section of this track. We were told there had been a fire through there not too long ago but there was a lot of lush regrowth and many plants in full flower.

Some parts of the regrowth were fields of seedlings, which I think are *Kunzea parvifolia* (Myrtaceae), the plants all being 100–150mm tall with a single pink flower on the top (not white as appears in my poor quality photo).



The blue-flowered seedlings I had trouble identifying but suspect are *Coopermookia barbata* (Goodeniaceae).



This image was a nice specimen of *Isopogon anemonifolius* (Proteaceae).



Our walk was very slow because there were so many things to look at and photograph, and we had not progressed very far along the track before a retreating local member warned us that thunder and lightning were approaching with attendant rain, so we returned to the car and got in just as a very heavy downpour started. End of play for the afternoon for us. Some walkers had proceeded much farther down a steeper, more difficult track, and were caught unawares by the sudden downpour! Everyone dried off in time for the very pleasant dinner at the Mittagong RSL in the evening.

Sunday morning was unfortunately very wet, but we managed quick visits to two members' gardens in suburban Bowral, in between heavy showers. At the first of these we bought a few plants and some lovely handmade photographic greeting cards showing native flowers.

Many thanks to the Southern Highlands Group for all their hard work organising the weekend.



Terry Trewin AAP.

THE BOOK THAT CHANGED ME: HOW H.H. FINLAYSON'S THE RED CENTRE HELPED ME SEE COUNTRY – AND WHAT WE HAVE DONE TO IT

The Conversation March 8, 2022 John Woinarski, Professor (conservation biology), Charles Darwin University

Books have been good to me: they have nurtured me, inspired me, taught me about life, helped me when the world seems hard. I love Russian poetry; there are shelves of fiction I enjoy. But here I want to tell of the books that helped shape my thinking about the natural environment.

There were of course many identification (field) guides that gave me the foundational knowledge of the names of plants and animals – the cast of nature. In my boyhood, these were pretty primitive, but indispensable. Guides now are far flashier. They also enticed me to seek the species shown in these books I hadn't yet encountered, an eternal quest.

But field guides are prosaic fare. I yearned also to understand the environment, to "see" country. I was, and still am, fascinated with the puzzle of it all – how the components of nature fit together, and how the whole functions.

A few books I came across in my youth were revelatory. In **Barbara York Main's Between Wodjil and Tor (1967)**, the country of south-western Australia comes alive, its nature exquisitely observed, the stories and marvels of its small things – so many spiders leading such strange lives – intricately linked with a broader narrative of the workings of the landscape.

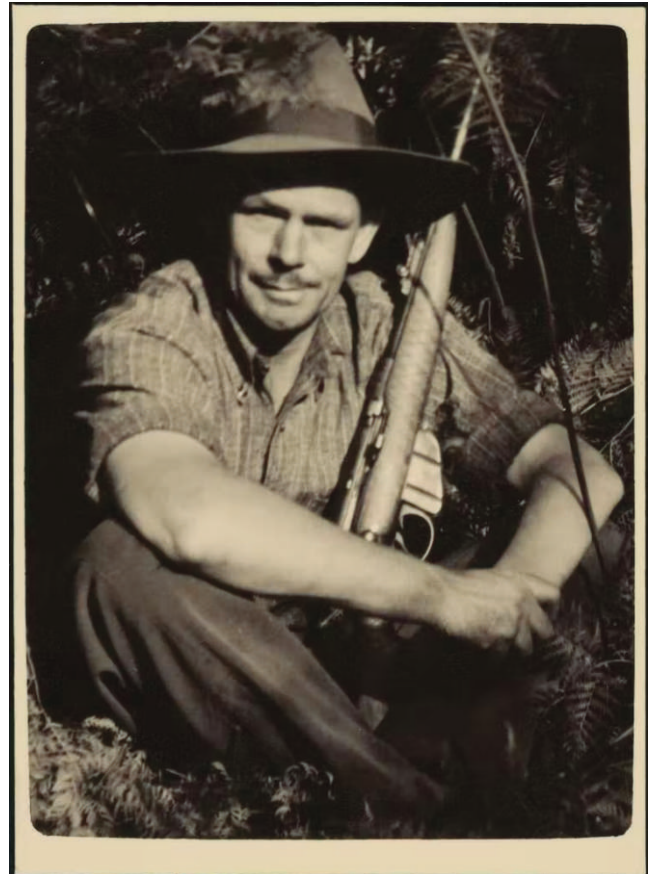
J.A. Baker's The Peregrine (1967) provides an astonishingly acute reading of nature: the author obsessed with, almost becoming, the birds he stalks – he has succeeded in seeing the world as another species does, privileging his reader to do so also. And the verve of the writing! "We are the killers. We stink of death. We carry it with us. It sticks to us like frost. We cannot tear it away".

I liked **Graham Pizzey's A Time to Look (1958)** for its gentle evocation and appreciation of the wonder of Australian nature and its caring portraits of the lives of birds. In **Nightwatchmen of Bush and Plain (1972) David Fleay** is a detective, unlocking the dark mystery of owls; almost a lover in the intimacy of his connection with them.

But the most formative book for me was **H.H. Finlayson's 1935 classic The Red Centre**. His biography is called **A Truly Remarkable Man**, and it is a fitting title.

Finlayson (1895-1991) lived a life of challenges. Experimenting with explosives at 15 (as one does), he blew off parts of most fingers on his left hand. Evidently unwisely, he persisted on this course and two years later another explosion resulted in the loss of what remained of his left hand, much of his right thumb and the sight in one eye. A brilliant, perceptive observer

Resolute and resourceful, he spent much of his life, often solitarily,



Finlayson photographed in 1936. G.M. Mathews collection, National Library of Australia

studying wildlife across remote Australia. From the 1920s to the 1950s, these expeditions spanned the cusp of the devastation of the Australian mammal fauna.

Finlayson was the last to collect and record many of these mammal species: he witnessed this loss. But in his many scientific papers, and in *The Red Centre*, he also foretold it, explained it and mourned it.

Species that are now extinct, such as the *Desert rat-kangaroo* and *Toolache wallaby*, come alive in Finlayson's words. For several species, his notes are all that has been – will ever be – reported of their ecology.

He was a brilliant and perceptive observer, and could portray the form, the behaviour, the fit of an animal to its environment. I can see them still from his words.



A photo by Finlayson of the now extinct Toolache wallaby, considered by many to have been the most beautiful of the kangaroos and wallabies. Author provided

And he wrote beautifully. Musing in The Red Centre on the losses:

It is not so much, however, that species are exterminated by the introduction of stock, though this has happened often enough, but the complex equilibrium which governs long-established floras and faunas is drastically disturbed or even demolished altogether. Some forms are favoured at the expense of others; habits are altered; distribution is modified, and much evidence of the past history of the life of the country slips suddenly into obscurity ... The old Australia is passing.

The environment which moulded the most remarkable fauna in the world is beset on all sides by influences which are reducing it to a medley of semi-artificial environments, in which the original plan is lost and the final outcome of which no man may predict.

From more than 80 years ago, these words still haunt; and they still describe the ongoing loss of Australian nature – due to what we have done to this country.



Painting of a Desert rat-kangaroo by John Gould, book illustration from *Mammals of Australia*. Wikimedia Commons

Finlayson's ecological understanding was profound. He could read the landscape. He gifts this understanding to the reader of *The Red Centre*.

Much of my career as an ecologist has been inspired by, and attempts to follow, Finlayson's capability to see and feel country; and to better appreciate what we may lose, and how imminent such losses can be.

Of course, the ecological perceptiveness displayed in *The Red Centre* and Finlayson's scientific papers owes much to his long association with and respect for the Indigenous people. Finlayson understood the connections of Indigenous people with country, and in *The Red Centre* often reveres and celebrates that knowledge and culture.

A present to me from a friend long ago, my copy of *The Red Centre* is older than me, mostly broken (it has lost its cover), much read. It is worth nothing; it is priceless.



Magpies

Along the road the magpies walk
with hands in pockets, left and right.
They tilt their heads, and stroll and talk.
In their well-fitted black and white.

They look like certain gentlemen
who seem most nonchalant and wise
until their meal is served - and then
what clashing beaks, what greedy eyes!

But not one man that I have heard
throws back his head in such a song
of grace and praise - no man nor bird.
Their greed is brief; their joy is long.
For each is born with such a throat
as thanks his God with every note.

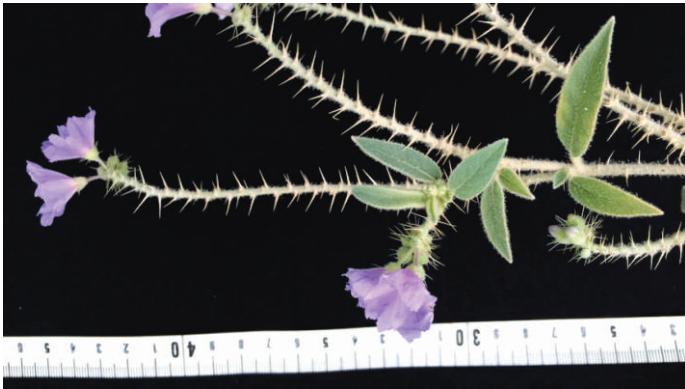
Judith Wright

..... and a couple more APS Northern Beaches Festive lunch pics.



UNUSUAL BUSH TOMATO WITH LADDER-LIKE FEATURES DISCOVERED IN NORTHERN TERRITORY NATIONAL PARK

ABC Alice Springs Lee Robinson



The newly discovered bush tomato has a ladder-like arrangement of prickles on the male flowering stems. (Supplied: Chris Martine)

During a nature walk along one of the Northern Territory's most spectacular lookouts, botanist Peter Jobson and his companions were stopped in their tracks by an unusual looking plant.

The bush tomato was low-growing, and had dozens of unique right-angle spines below each flower. "You can see 20 or 30 spines going up, and they look like the rungs of a ladder," Mr Jobson said.

Mr Jobson, who was formerly the chief botanist of the Northern Territory, was the lone Australian among a group of American scientists hiking through the Judbarra/Gregory National Park, and in the region for an unrelated research expedition.

Enjoying panoramic views of Victoria River and its towering red escarpments, he said a spontaneous decision to make a detour led to the discovery.



Peter Jobson (centre) with his American colleagues exploring the vast Northern Territory outback. (Supplied: Chris Martine)

"We came across the escarpment walk and we went, 'Well, let's just see what's up there'," Mr Jobson said. "If nothing else, it would be a nice view, and we'd be able to take some photos."

The plant turned out to be a new species of bush tomato. Its ladder-like appearance inspired its scientific name, *Solanum scalarium*.

"Then we started thinking that we had climbed up a lot of steps to see it, and we continued up more steps to get up to the lookout at the top," Mr Jobson said. "We looked for the Latin word for 'stairs' or 'ladder', and fortunately it's the same thing — it's 'scalarium'."

"We liked the play on words."



The scientists came across the unusual species while hiking through the Judbarra/Gregory National Park. (Supplied: Angela McDonnell/Chris Martine)

The researchers were thinking about yet another wordplay when recommending a common name for their new discovery. "As biologists, we get to go and see lots of the countryside — it's part of our job, and we get very excited about it," Mr Jobson said. "In our paper, we wanted to acknowledge that this was also climbing up to go into the national park."

They suggested using "Garrarnawun Bush Tomato" as the common name for the new species, in recognition of the Garrarnawun Lookout near where it was discovered.

In their paper, published in December in plant journal *PhytoKeys*, the authors said the naming served as a tool to highlight "the importance of building community around natural spaces".

"It's also about us introducing the general public back into the wilderness that we have, particularly in the Northern Territory, which is probably one of the best places to be isolated in such an easy way," Mr Jobson said.

Many species still undiscovered

The vast Judbarra/Gregory National Park, located 360 kilometres south of Darwin, is recognised as a botanically rich area, meaning there are potentially hundreds of species yet to be formally identified.

"A lot of people think that we know every plant in Australia, but we don't," Mr Jobson said. It is too early for scientists to postulate the potential applications of the tomato, but Mr Jobson said related species of the plant had been used in Aboriginal ceremonies and as food in the Kimberley in WA.

"We guess that there's a potential for it to be eaten," he said. "But the thing with tomatoes is you have two types: the ones you can eat and the ones that are highly toxic and will happily kill you." "I have a very healthy respect for my liver ... so until I can talk with the traditional owners ... I'd rather not taste it."

He said it was also possible to take a sample into the lab for testing, where it could be tested for the toxic compounds.

Bright future ahead for bush tomato

Mr Jobson said he was excited for further research to be conducted on the plant. "What would be wonderful is if we were able to work out a management plan to try to find out how rare it is," he said.

"If it is very rare, we need to work out how to manage it so that it doesn't go extinct and it stays around. "And I think it's smart that we ask the local tribe to see if they used it. If it is used, the scope is amazing — it spreads out like ripples in a pond."