

# *Fronds*

*Friends of the Australian National Botanic Gardens  
Number 107 August 2024*





# Friends of the Australian National Botanic Gardens

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## FronDs is published three times a year. We welcome your articles and photographs.

The deadline for articles is mid-February for the April issue, mid-June for the August issue and mid-October for the December issue.

Email material to the FronDs Committee at the above email address or place in the Friends letterbox, located inside the Gardens Visitor Centre, between 9.30 am and 4.30 pm, Monday to Sunday. Editorial messages: telephone 02 6250 9548. Previous issues of *FronDs* may be found on the Friends website under the Newsletter tab.

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Friends of the ANBG is a member of the AAFBG

## Acknowledgment of Country

We acknowledge the traditional custodians of the land throughout Australia and their continuing connection to country and culture, and pay our respects to Elders past and present.

Covers: Australian National Herbarium staff led a project to have 23 threatened species of orchids from Australia – including *Thelymitra adorata* (front) and *Diuris flavescens* (back) – added to the International Union for Conservation of Nature Red List of Threatened Species. See pages 6–7. Photos: Mark Clements

# Orchids found on Black Mountain

Black Mountain is an unique orchid rich area with 64 species recorded at present. Of these 64 species, 11 are not recorded elsewhere in the ACT, though it should be noted they are not endemic to the ACT. Twenty seven are recorded elsewhere in the ACT, but with a limited distribution, making those on Black Mountain an important repository. The remainder are recorded widely.

There are many factors governing the uniqueness and wide seasonal range of the orchids on Black Mountain, one being that the mountain is predominantly sandstone, which many orchid species favour. The surrounding hills are made of later formed volcanic rock.

Over millions of years erosion of the sandstone has occurred forming significant undulation, resulting in dry, relatively open forest ridges, deep damp sheltered gullies, and gentle slopes.

As many orchids favour specific environments, the variety of habitats plus the sandstone is the reason for such a wealth of orchids in comparison with the rest of the ACT.

All orchids have a symbiotic relationship with mycorrhizal fungi. The fungi provide nutrients to the very small nutrient deficient seeds to aid germination. In turn, the mature orchid roots or tubers will play host to the fungi.

The orchid flower is made up of three sepals and three petals. One of the petals is modified to form a labellum which acts as a landing platform for pollinators. Orchids are masters at deception, enticing pollinators using various strategies to brush against the column (the fused reproductive male and female structure). This dislodges a sticky package of pollen called the pollinia, to carry to another plant to ensure cross-pollination.



Above: Examples of different orchid labellum shapes. Clockwise from top left: Greenhood, donkey, spider and beard. Right: Wasp orchid, an example of insect mimicry. Photographs by the late Tony Wood.

Although some orchids on the Mountain produce nectar to reward the pollinator, such as the Mosquito orchid (*Acianthus*) and the Gnat orchid (*Cyrtostylis reniformis*), many give no rewards, but are very clever at using trick strategies, such as food deception and sexual deception.

An example of food deception is the yellow Donkey orchid (*Diuris*), that mimic the shape and colour of nearby yellow/orange nectar producing pea flowers.



# Orchids found on Black Mountain (cont.)



The Mountain also has many species of orchids that use sexual deception, by producing the same chemical compounds as specific female insects to attract the male. This tricks the male to land on the labellum and in the process of trying to mate, removes the pollinia.

Some labella have the added attraction of mimicking the shape of the females, while others have a motile labellum that flips when triggered, trapping the insect within the flower. In the struggle to be released it brushes against the column, dislodging the pollinia.

On a warm day, the air can be filled with various scents given off from orchids such as the Brown Beaks (*Lyperanthus suaveolens*), the Wax Lips (*Caladenia major*) and the Lemon and Musky Caps (*Caladenia cucullata*, *C. moschata*), but more research is needed to positively validate the role the scents play in attracting pollinators.

**Don't miss the Orchid Walks on 6 October and the Spring Wildflower Rambles on 12 October on Black Mountain. Details on page 20.**



Types of orchids found on Black Mountain. Clockwise from top left: Wax Lips, Small Flying Duck, Parson's Bands, Helmet and Greenhood. Photographs by the late Tony Wood.



Although spring is the main flowering time on Black Mountain, orchids can be found flowering all the year round.

In spring the forest ridges and slopes are colourful with mauve of the Wax Lips (*Caladenia major*), yellows of Donkey orchids, including *Diuris nigromontana*, named after the mountain, and white/pink of the Caps and Fingers (*Caladenia* species). The lower slopes are favoured by the stunning red/green Spider orchid (*Caladenia atrovvespa*), three species of the purple/brown Beards (*Calochilus*) and many species of blue Sun orchids, (*Thelymitra*).

Early summer brings the intriguing Small Duck orchid (*Caleana minor*), that is often missed, but careful searching is rewarded with the flowers shaped like a flying duck. Mid-summer is the flowering time of the tall Beard orchid, (*Calochilus theophilus*) and the showy Hyacinth orchid (*Dipodium roseum*), though there are few of the

latter on the Mountain, compared to the Namadgi region.

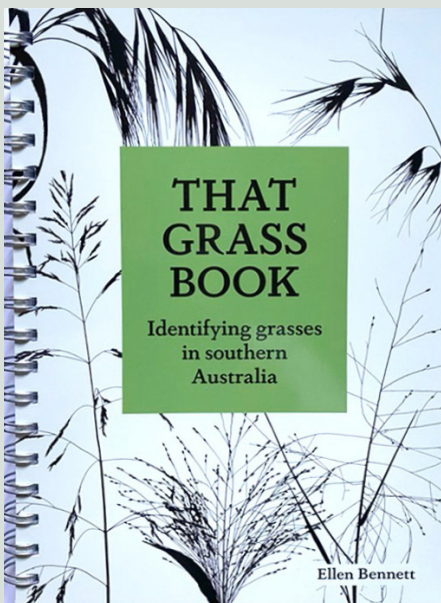
Early autumn produces a fine display, of smaller, less colourful orchids that favour the moister gullies. Two species of Midge orchids (*Corunastylis*), Greenhoods such as *Speculantha* and *Dipodium*, and the delightful Parson's Bands (*Eriochilus cucullatus*). In late autumn, with diligent searching, the Mosquito orchid (*Acianthus exsertus*) and one of the Helmets (*Corysanthes hispida*) can be found.

Mid-winter is when another Mosquito orchid flowers (*Acianthus collinus*) and later three more species of the Greenhoods (*Pterostylis*), plus the only Gnat orchid in the ACT (*Cyrtostylis reniformis*).

Of course there are many more species not mentioned. This is just to give an idea of how privileged we are to live in a city with such a diversity of orchids right on our doorstep.

**Jean Egan**

# Botanical Bookshop book reviews

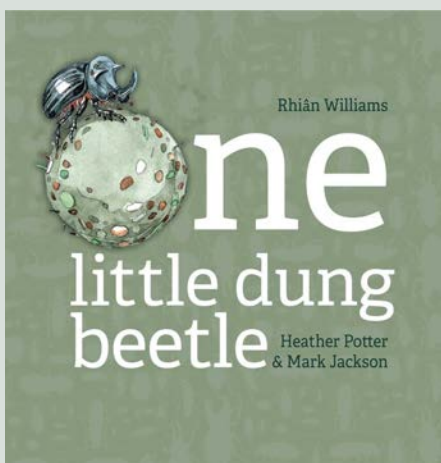


## **That Grass Book: Identifying grasses in southern Australia. 2023**

**By Ellen Bennett**

**Softcover with spiral binding, colour photographs and maps, 192 pages, \$49**

Let's face it, grasses are tricky to identify! They often look the same as others, their form can be affected by seasonal conditions, they are hard to distinguish even when flowering, and the tiny flower parts often require magnification and a good understanding of the intricacies of the delicate flower parts. This new book provides excellent photographs, location maps, identification tips (which include similar species to be aware of), and a fabulous silhouette key which presents life-sized images of the grass heads as silhouettes to help with matching the spikelet shapes, sizes, awns, bristles or hairs of the grass you are trying to identify, with the outlines in the book. Once matched, we are sent to the correct pages in the book for closer analysis. The in-built ruler and clearly labelled diagram of a grass spikelet and plant tucked in the back cover of the book is very useful!

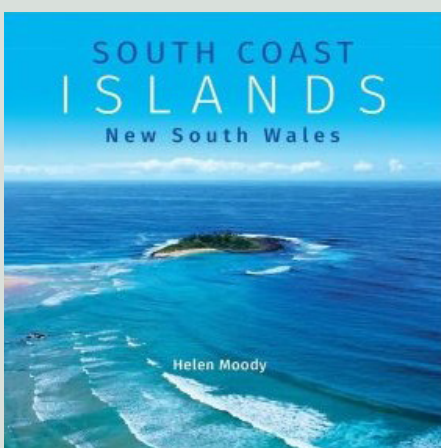


## **One Little Dung Beetle. 2024**

**By Rhiân Williams**

**Hard cover, colour illustrations by Heather Potter and Mark Jackson, 24 pages, \$25**

One Little Dung Beetle is the latest book from local Canberra author Rhiân Williams, with illustrations by Mark Jackson (*The Snow Wombat*) and Heather Potter (*Pearl Versus The World*). This beautifully illustrated book captures the attention of young readers and introduces them to the, sometimes overlooked, world of beetles. Counting as you go, meet ten Australian beetles through descriptive rhyme and vibrant watercolour artwork of their unique habitats. At the end of the book are some more beetle species to explore and two pages full of fun beetle facts to learn.



## **South Coast Islands New South Wales. 2023**

**By Helen Moody with Mike Jefferis**

**Softcover, 198 pages, \$55**

This fabulous book explores 61 islands and their environments on the South Coast of NSW. It is a book for locals, visitors, nature lovers and anyone with an interest in the history, culture, and natural environment of this area. The authors use their personal knowledge gained whilst leading kayak and walking tours in the area, combined with comprehensive research, to then share with us information on aboriginal connections to the islands, early European coastal exploration and settlement, geology, flora, birds, lighthouses, shipwrecks and more. The beautiful colour photographs throughout the book bring this area to life, with 'fun fact' boxes and visiting tips. It is a reminder of the beauty and uniqueness of this part of the south coast with its lagoons, lakes, estuaries, and beaches. It certainly has us dreaming of the next holiday, knowing that with this book tucked under our arm it will be an even more rewarding and informative experience. Funded by donations and a grant, and aided by the contribution of over 20 photographers this is a self-published book, with profits going to environmental projects. A fantastic community effort, with the result being the first-ever book about the islands of the NSW South Coast. An excellent read!

# A look inside the Herbarium

The Australian National Herbarium (ANH) in Canberra holds more than a million plant specimens, including voucher specimens of all plants growing at the Australian National Botanic Gardens (ANBG).

The Herbarium is used to document and understand biodiversity, describe species that are new to science and support research for conservation and biosecurity.

The majority of specimens in the Herbarium are dried and either pressed flat and mounted on large sheets of archival paper or stored in specialised envelopes and boxes. But some specimens are stored in ethanol in the Herbarium's spirit collection.

A specimen is more than a record of what a plant looks like and when and where it was collected. A specimen is a record of Australia's biodiversity, encompassing genetic, spatial and time-series data.

## A collection in spirit

Unlike specimens that are dried and pressed, specimens in spirit retain their three-dimensional shape and structure. This preserves the delicate flowers of species like orchids.

Among the vials, jars and buckets in the spirit collection are:

- 17,000 orchids, thought to be the world's largest spirit collection of orchids
- wild bananas collected in Papua New Guinea during expeditions in the 1950s and 60s
- type specimens from Australia and PNG. Types are the most important specimens in any collection because they anchor the name of a species to a specimen.

Most of the specimens in the Herbarium's spirit collection are stored in 40 millilitre vials. The largest is



CSIRO

Above: Most of the specimens in the Herbarium's spirit collection are stored in 40 millilitre vials.

stored in a bucket. It's an inflorescence of a species in the genus *Tapeinochilos*, which are large tropical herbs with striking, cone-like flowers.

The spirit collection will soon be relocated to a vault in CSIRO's new National Collections Building at Black Mountain. It will join specimens of insects and wildlife, from tiny flies to large snakes coiled in jars. The specimens will be held in a purpose-built bunker at 16°C, with a sunken floor to protect from spills.

To prepare for the move, staff have carefully curated the spirit collection, replacing a range of old, often substandard jars and transferring specimens preserved the old way – using a toxic chemical called formaldehyde – into BANG mix.

BANG is an anagram of ANBG, acknowledging the Garden's staff who developed the recipe: 70 per cent ethanol, 20 per cent water and 10 per cent glycerol. BANG mix is safer to handle than preservative chemicals used in the past. It also helps specimens remain flexible and less brittle and prevents microbial attack.



CSIRO



CSIRO

Top: Orchids stored in spirit leach their colours but retain their 3D shape.

Above: Specimens in formaldehyde in old jars have been transferred to new containers and BANG mix.

## Listing our most vulnerable orchids

While many of the Herbarium's orchid specimens are stored in ethanol, some are also preserved on sheets. Others are preserved as orchid floral cards, their delicate petals carefully dissected and covered by tape.

Last year, staff led a project to have 23 threatened species of orchids from Australia added to the International Union for Conservation of Nature Red List of Threatened Species. It brought the total number of Australian orchids on the Red List to 51.

Almost all of the 23 species added to the Red List are terrestrial, meaning they grow on the ground. In contrast, most of the world's orchid species are epiphytic, meaning they grow on trees.

Adding orchids to the Red List helps increase awareness of Australia's orchid diversity and paves the way for conservation.

## Digitising the collection

Over the past couple of years, the Herbarium collection has been imaged using an automated conveyor belt system developed by Netherlands company Picturae.

The Herbarium's cryptogam collection is held on site at ANBG. Cryptogams are a mixed bunch that includes mosses, hornworts, liverworts, ferns, fungi, lichens, slime moulds and seaweed. This specimen is a lichen in the collection.



Gordon Gullock



CSIRO

Above: ANH Collections Coordinator Bronwyn Collins examining a specimen of *Swainsona formosa*. Below right: Herbarium Assistant Curator Emma Toms beside the conveyor belt while specimens are being digitised.

The first step was barcoding. Staff checked each specimen and labelled it with a barcode to link the physical specimen to its digital record. Three people operated the conveyor belt, which moved specimens under a camera to take a high-resolution photograph.

Digitising the Herbarium provides security for the irreplaceable physical specimens. It's also a huge leap forward for sharing specimens for research and providing information quickly for research. Digital specimens also support new technologies like artificial intelligence to extract information from images and use it in new ways.

## Acknowledgements

The Australian National Herbarium is part of a joint venture between Parks Australia's ANBG and CSIRO.

The new National Collections Building is jointly funded by CSIRO and the Department of Education through the National Collaborative Research Infrastructure Strategy.

**Andrea Wild**

**National Collections and Marine Infrastructure, CSIRO**



CSIRO

**Don't miss the talk on Thursday 12 September by Anthony Whalen, Director of the National Research Collections Australia CSIRO.**

**Details on page 22.**

# Wattle: A celebration for all Australians



Suzette Searle

Garden's staff, Friends Warwick and Pat Wright and members of the WDA, planting the first of 50 *Acacia pycnantha* seedlings donated to the ANBG to celebrate its 50th Anniversary.

Thanks to advocates in the 1980s such as Maria Hitchcock, other members of the Australian Native Plants Society and Ian McNamara (ABC radio broadcaster), *Acacia pycnantha* (Golden Wattle) was proclaimed by the Governor-General as Australia's national floral emblem in 1988. Four years later, 1 September became National Wattle Day (NWD) through another proclamation. It has been the aim of the volunteer-led Wattle Day Association (WDA) since 1998 to raise awareness of these proclamations.

It has been slow in coming but over the last decade *A. pycnantha* is being increasingly used for inspiration by Australian designers. A notable example is the inclusion of *A. pycnantha* on the \$100 note in 2020.

And, since 2017 when I bemoaned the lack of *A. pycnantha* seedlings in nurseries and easily accessible trees in public places around Canberra, more than 300 seedlings have been planted for locals and visitors alike to enjoy. This is thanks to Parliament House, ANBG, the ACT Government (National Arboretum Canberra, Urban Treescapes, Yarralumla Nursery) and the National Capital Authority (Commonwealth Park and elsewhere in the National Triangle). Commercial

nurseries too are more likely to stock *A. pycnantha* seedlings these days.

Widespread awareness of National Wattle Day, however, is still to come. It has yet to regain the popularity and influence that wattle days enjoyed in the first half of the 20<sup>th</sup> century.

But change is in the wind. 2023 was a turning point when the federal minister for Honours and Symbols, the Hon Patrick Gorman MP, wrote to the Minister for Immigration, Citizenship and Multicultural Affairs, state Premiers, Chief Ministers, Lord Mayors and the Chief Executive of the National Capital Authority to encourage them to recognise and celebrate NWD as part of all official calendars. Watch this space.

## The Wattle Day Association

It was in 1983 that Jack Fahy tried to restart Wattle Day celebrations to celebrate being Australian. In that year he became chairman of the 'Week of the Wattle' subcommittee that he established as part of the Canberra Australia Day Council (CADC), which he chaired 1979–82.

Jack's idea was that the Week of the Wattle would be celebrated first in Canberra 22–28 August 1983, and then

around Australia in 1984. He promoted the week through newspaper, TV and radio interviews, and contacted schools, several community groups and public service departments to encourage them to wear the green and gold (a sprig of wattle) on Wednesday 24 August to celebrate Wattle Day. But despite his efforts, it was to be another nine years and advocacy elsewhere that led to the creation of National Wattle Day.

The lack of action after the Governor-General's 1992 proclamation prompted Jack to invite people to join him via an advert in the *Canberra Times* in 1998. He formed the Wattle Day Association, as he later wrote, in the hope "that National Wattle Day becomes a celebration for ALL Australians and will lead us in this ever-changing world to aspire and evolve into being better Australians".

The Wattle Day Association Inc. (WDA) has been going for 25 years now. Thanks to Covid and changes to ACT association regulations, meetings can now occur online and include members from other states.



Suzette Searle

*Acacia pycnantha* (Golden Wattle) flowering in STEP Forest 20 at the National Arboretum Canberra. WDA promotes the benefits of planting wattles and tries to dispel the myth that wattle pollen cause allergies.



Suzette Searle

Getting ready to plant Golden Wattles (*A. pycnantha*) at the ANBG Acacia Garden in April 2021.

Our second President, Terry Fewtrell (2007–19), is a gifted wordsmith and we circulated his many thoughtful and inspiring articles to the media.

The WDA website [wattleday.asn.au](http://wattleday.asn.au) reaches the rest of Australia with accurate information about all aspects of the floral emblem and National Wattle Day. We also promote NWD activities on social media platforms.

Here in Canberra we've held forums at the National Museum and the National Library of Australia, and had activities at suburban shopping malls and social occasions at clubs, the Gardens, lake foreshores and the racecourse. As the weather isn't always co-operative on 1 September, we hosted dinners with a bush food theme and special speakers.

Since 2015, we have held an annual stall 'Wattle Corner' at the National Arboretum Canberra, and in 2024 there will be the first Spring Wattle Market at the Old Bus Depot Markets Kingston on 1 September.

WDA has also received invaluable support from Australia's Governors-General. Since 1999 they have generously welcomed the Association and school children from across the ACT to celebrate National Wattle Day

with baskets of wattle, planting of wattles and singing of wattle songs by the ACT Primary Concert Choir.

Particularly special has been the singing of Mrs Linda Hurley's composition *The Wattle Blooms* ([wattleday.asn.au/the-wattle-song](http://wattleday.asn.au/the-wattle-song)). Her Excellency was inspired to write this song after the celebration for NWD in 2019 at Government House and we hope this becomes part of the national celebration.

**Suzette Searle**  
President,  
Wattle Day Association Inc



Howard Moffatt

## Looking ahead

To continue to build National Wattle Day as a unifying day for all Australians, WDA advocates for the following:

1. National Wattle Day to appear on 1 September in every calendar.
2. National Wattle Day to be included as a day when national honours are announced, if not awarded, to those in recognition for their service to our country.
3. National Wattle Day to become a national public holiday. 1 September has the advantage that it does not conflict with other national, state/territory public holidays or school holidays, and is at a time of year when there are few national holidays.
4. The celebration of National Wattle Day to become an annual feature at school assemblies.
5. The inclusion in the Australian Curriculum of integrated learning, from civics to the arts and sciences, around *Acacia pycnantha* – the national floral emblem and National Wattle Day (1 September).

In the meantime, check out the Top 100 Ways to Celebrate National Wattle Day at: [wattleday.asn.au/top-100-ways-to-celebrate-national-wattle-day](http://wattleday.asn.au/top-100-ways-to-celebrate-national-wattle-day)

**Join a Volunteer Guide on a free Wattle Walk during the first week of September.**

**Details on page 19.**

Since 2020 landmarks like the National Carillon on Lake Burley Griffin have been lit in green and gold by the National Capital Authority and the ACT government has been lighting up too.

# Exploring post-fire interactions of the East Lynne Midge Orchid

The rain that came after the 2019–20 fires seemed to never end. It rained, and rained, and just as things started to dry out, it would rain again. The silver lining being that the combination of cleared undergrowth and abundant rain made for excellent orchid hunting.

My first year at the Eurobodalla Regional Botanic Garden (ERBG) was both tough and like something from a dream. Coming to grips with the tragedy of fire, and yet every day seeing the Gardens renewing themselves and bursting into life was a strange juxtaposition. It felt like almost every day we were discovering something new coming back from the soil seedbank – often plants that hadn't been seen growing onsite for years.

In just my first year, I observed and photographed 23 species of orchids growing on the 42 hectare site, and it became a bit of an obsession finding and identifying them all.

The ERBG Wallace Herbarium was particularly helpful, as it holds a comprehensive collection of herbarium specimens of the orchids found on site, especially from the early years when the Garden was being established between 1986 and the mid-1990s.



Dylan Morrissey ERBG



Dylan Morrissey ERBG

Left: *Corunastylis* with leaf. Right: *Corunastylis* fruit.

Having moved from Sydney, many of the species were familiar, but quite a few were completely new to me. Cross referencing my IDs with herbarium specimens, most were correctly identified and named, although a couple caught my eye as being slightly different or in need of an update, namely a *Genoplesium rufum*. Something about its habit didn't look quite right, and sure enough upon closer inspection it looked a better fit

for *Corunastylis vernalis* (*Genoplesium vernale* in NSW): a state and nationally listed vulnerable species that only occurs from Lake Conjola south to Moruya.

ERBG's Honorary Herbarium Curator Tricia Kaye confirmed the identification and verified by email with Mark Clements and Heidi Zimmer of the Australian National Herbarium, using high resolution microscope photos.

It has long been thought that *Corunastylis* species are pollinated by tiny chloropid flies, but in many species the specific pollinator is unknown.

There are various theories about how the orchids attract pollinators, but it seems that the pollinators are mostly female. We had certainly noticed small flies on the ERBG plants in 2021.

The ERBG populations were an ideal candidate for further study given their easy accessibility.

The East Lynne Midge Orchid, *Corunastylis vernalis*, is a small terrestrial orchid that grows to a height of just 250 mm. The inflorescence comprises of 10–25 3.5 mm wide dark maroon flowers and a single leaf, just a few millimetres wide.

Populations are sparsely distributed over a narrow range from Moruya to Lake Conjola and it is named for the East Lynne location where it was first described.

The East Lynne Midge Orchid is listed as Vulnerable under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and Vulnerable (Schedule 2) on the NSW Threatened Species Conservation Act 1995 (TSC Act.)

NSW Government Environment and Heritage website  
[environment.nsw.gov.au](http://environment.nsw.gov.au)



Daniel Bateman



Dylan Morrissey

Left: Flowers of *Corunastylis vernalis*. Right: Typical dry sclerophyll habitat of the East Lynne Midge Orchid.

Tricia worked with a local photographer and student entomologist Phil Warburton to record pollination success and if possible, to identify the pollinator.

Phil and a few other members of the local photography club spent multiple days patiently waiting with cameras trained on the flowers hoping to capture the moment the plants were visited.

Finally, their dedication paid off.

Flowers were being visited in very low numbers by a species of chloropid fly, identified ultimately by the Australian Museum as a female in the genus *Conioscinella*. This same genus had been identified as the pollinator of several other *Corunastylis* species.

Unexpected visitors that were observed on the inflorescences were tiny spiders, and spider web could be seen on many of the flowers.

In some cases, the spider web blocked pollinator access to the flowers and even stopped the flowers from properly opening. It is unknown to what extent the spiders impacted the pollination of the orchids.

The fires resulted in low numbers of parasitic wasps, predators of the spiders, which in turn potentially resulted in a larger than normal population of spiders that could have disproportionately affected pollinator populations.

Much is still unknown about how this complex ecology is impacted by extensive bush fires and what, if any, are the ongoing effects.

Even more curious was the fact that surviving plants produced a high proportion of fruit, even though there were very few flies observed, raising the possibility of self-pollination in some circumstances. The initial findings of this study were published in *Australasian Plant Conservation*, May 2023 edition.

It is exciting to think there is still so much to study and explore so close to home. Also, a little daunting to think there is so much happening around us that we just have no idea about.

The entire range of *Corunastylis vernalis* was burnt in the 2019–20 fires (although the population is considered stable) and it appears the impacts may still be ongoing.

**Dylan Morrissey**  
**Eurobodalla Regional**  
**Botanic Garden**

### About the author

Dylan Morrissey is the horticulture supervisor at Eurobodalla Regional Botanic Garden where he has worked since 2021. He is an avid orchid grower with over 20 years' experience and is currently training to be an orchid judge.

# Friends Briefs

## Birds of the Australian National Botanic Gardens

### Paintings by Frances McMahon

Many Friends would be familiar with the brochure *Birds of the Australian National Botanic Gardens*. This brochure has been popular with visitors to the Gardens for many years.

The brochure design is based on a series of original paintings by watercolour bird artist Frances McMahon. The paintings were executed by Frances during 2010 and 2011, and involved many hundreds of hours of work.

Assistance with this project was provided by Friends members Jenny Bounds, Louise Muir and others.

One of the terms of the commission was that the artist would retain the original works. Frances has now generously donated the five original watercolour paintings to the Friends. The collection comprises five paintings, each beautifully framed, and will go on display for all to see.

Friends Council would like to thank Frances for her extreme generosity.

**Neville Page**



Above and right: Frances McMahon has generously donated the five original watercolour paintings used in the *Birds of the Australian National Botanic Gardens* brochure to the Friends.

## 24th Photographic Competition for Students

The competition is open to students attending Australian schools or colleges, and provides an excellent opportunity for students to become aware of the value and beauty of the ANBG and, by exercising their photographic skills, to share that beauty with other visitors.

All entries must be digital photographs taken within the ANBG between 30 August 2023 and 30 August 2024, and feature some aspect of the Gardens, such as plants, wildlife or scenery.

Closing date is **Friday 30 August 2024**.

For further information please see the Friends website at [friendsanbg.org.au/activities\\_schoolsphotocomp](http://friendsanbg.org.au/activities_schoolsphotocomp)

**Linda Beveridge**



**Pollen**

Open daily | 9:00am to 3:30pm  
[pollencafe.com.au](http://pollencafe.com.au)

## Vale Jill More (1947–2024)

Jill More began her time at the Australian National Botanic Gardens in July 2008, when she commenced her training as a Volunteer Guide.

Jill and her partner David had recently retired and decided to move to Canberra from Sydney to be close to their daughter and her family. Jill had been a Librarian at the College of Fine Arts (COFA) in Sydney, now known as the UNSW School of Art and Design. She brought to guiding her artistic, librarian electronic data-based skills and a desire to learn more about Australian flora. As a newcomer to Canberra, the Gardens and the many friends she made here were a central focus.

Before long, Jill sought the opportunity during Guides' meetings to introduce a concept that she called the 'Guides Wiki'. This was regarded with some scepticism initially by some of the more senior Guides who were not as familiar with IT. Jill, with technical help from David, established the online Wiki, which became a valuable resource for professional development notes, anecdotal stories as aids for guiding and links to information, which could now be easily accessed online. It is due to Jill that Guides now have a wealth of information available on what is now called, the Guides Web.

Jill was an active walking and Flora Guide and, at the time of Summer Concerts, was member of the Summer Concerts Committee. When the Australian Guides Conference was held in Canberra in 2017, Jill developed a memorable walk, in which vistas in the Gardens were related to famous works of art.

### Did you know...

...you can find issues of **Fronds** on the Friends website under the **Newsletter** tab?



Jill More

David More

She was a keen traveller on environment-based trips. A number of Guides enjoyed travelling with her to destinations including Western Australia, Lord Howe Island, Western Victorian National Parks, Kangaroo Island and Arnhem Land.

As a key member of the Guides Web team, Jill played a significant role in the site's subsequent redesign and upgrade in 2018, in particular with the information storage and retrieval aspects. She was also a member of the Friends Website team, contributing many articles. She was a member of the Nature Journaling Group and together with David, an active supporter of Friends' social activities, events for new members and on the Thursday Talks team.

Jill continued her active roles until her illness three years ago. In 2022, both Jill and David were awarded Life Membership of the Friends.

Our condolences to David and the family. We will all miss you Jill.

**Margaret Kilham  
and Trish Munro**

## Friends 2024 Annual General Meeting

The 36th AGM of the Friends of the ANBG will be held on Thursday 24 October 2024 at 3.00 pm in the Gardens Theatre, followed by light refreshments in the Dickson Room.

On the agenda will be elections for President, Secretary, and three Ordinary Members. If a current member of Council nominates for and is elected to another vacant position, there will be an additional vacancy for an Ordinary Member.

The agenda will include proposed amendments to the Friends Constitution to accommodate the establishment of a Gift Fund, and to revise provisions relating to dispute resolution.

A notice will be issued on the Friends website and in the e-newsletter nearer the date, along with papers and how to nominate. If you have any questions please email the Secretary, Marg Nicholls [secretary@friendsanbg.org.au](mailto:secretary@friendsanbg.org.au)

# Friendly Chatter

## Botanic Art Group

The hard work of many Botanic Art Group members culminated in the success of the 2024 annual exhibition in April. Over half of the framed paintings were sold, as well as many cards and raffle tickets.

Over \$5,000 was raised for the Friends in commissions. The Friends Committee selected Sue Grieves' beautiful painting *Hakea platysperma* in mixed media to add to the Gardens' collection of botanic art.

A new feature in this 17th annual exhibition was a display of 10cm x 10cm squares featuring small examples of work undertaken in regular meetings. Many of the squares were available for sale and added to the funds collected for the Friends.

As a result of the exhibition we had a number of people asking how they could join the Botanic Art Group. They were encouraged to join the Friends and come along to one of the regular monthly meetings on the 2nd Thursday, 2nd Saturday or 4th Wednesday.

We will also be holding a number of additional workshops for members later this year including Beginning Botanical Art and Coloured Pencils. Email [botanicalart@friendsanbg.org.au](mailto:botanicalart@friendsanbg.org.au) for more information if you are interested.

**Kate Ramsey**

## Growing Friends

While we are putting on our winter woollies in Canberra, all keen gardeners know that once spring comes, our plants will start to come to life again. But, we should also not forget that many Australian natives, correas as one example, flower through winter, to help brighten our days.



On 9 May, *Hakea platysperma* by Sue Grieves was presented to Peter Byron for the ANBG's collection. Left to right: Linda Beveridge (Vice President), Peter Byron (Director of ANBG), Sue Grieves and Judy Hutchinson.

Growing Friends had a very successful plant sale in March. Some 1300 plants were eagerly swept up by an enthusiastic public and were all sold within 30 minutes of opening at 9.00 am. Many gardens in Canberra and surrounding areas will no doubt see their new additions start taking off in spring and be well established in 12 months.

The Gardens recently gave Growing Friends full access to a large garden shed next to the group's igloo precinct.

Members are enjoying the additional, safer and better insulated, space for propagation and ongoing planting of the established cuttings.

The group is very grateful to the Gardens for making this extra work space available.

The group was recently also given easier access to some sections in the Gardens, as well as access to additional plant species, for the collection of cuttings and seeds. As a result, it is anticipated that an even wider range of plants will be available at future plant sales.

For more information about the plants that the group propagates for its sales and membership details, please email [growingfriends@friendsanbg.org.au](mailto:growingfriends@friendsanbg.org.au)

**Donna Growcock**



Provided by Lesley Page

This issue's reflection from the Nature Journaling group depicts butterflies.

## Nature Journaling

Nature Journaling meets on the first Monday of the month at 10.00 am at the Visitor Centre.

If you would like to join us, please contact [lespage26@gmail.com](mailto:lespage26@gmail.com)

**Lesley Page**



Some of the new Volunteer Guides outside the Visitor Centre.

## Volunteer Guides

The ANBG has trained another cohort of new Volunteer Guides and, here, two new Guides share their perspectives.

### Julia

The Gardens have always been a special place for me, and I was keen to get more involved when I retired. After joining the Friends, I saw the opportunity to become a Guide and knew that was for me. As a bushwalker and gardener, I have learned a little about Australian plants, but the Guide training was such an eyeopener. Gaining a better understanding of our flora and the various plantings at the Gardens has been very rewarding.

I am enjoying being a Flora Explorer guide; it is an opportunity to show more of the Gardens to people who might have mobility issues, or who just want an overview and orientation.

Thanks to the existing Guides and staff who have all been so friendly and helpful!

### Rob

I have been an enthusiastic native plant gardener for about 30 years and a frequent visitor to the ANBG the whole time.

When I retired a few years ago my first plan was to become a volunteer. I joined the Growing Friends and became a volunteer at the Visitor Centre. But when an opportunity arose to become a Guide, I jumped at it. I was not disappointed. The course was thorough, informative and extremely well run.

I had no previous training in botany, so the learning curve was almost vertical, which was immensely rewarding. To cap it off I have befriended a wonderful cohort of equally enthusiastic newbie Guides.

**Kerry Moir**

## Plant Science Group

Unfortunately the talks planned for March and May had to be cancelled due to the unavailability or the ill-health of speakers. However we had an excellent talk in April from Dr Julia Cooke, a visitor from the Open University in the UK, about the benefits and costs to plants of using silicon, an element found in all plants in a range of concentrations.

In June one of our members, Derek Corrigan, the Conservation Officer with the Orchid Society of Canberra, presented the findings of extensive surveys the group had undertaken on the orchid species at Bluett's Block-Piney Ridge, a significant piece of remnant bush at our newest urban edge of Whitlam and Denman Prospect.

The July talk was given by Carol Dale, Senior Horticulturalist and acting Nursery Manager at the ANBG about the work being undertaken by the nursery staff using, where possible, non-chemical methods to manage pest and diseases in the greenhouses, particularly the tropical greenhouses where plants for the new Conservatory are being grown.

More interesting talks are planned on the second Monday of each month until November so, if you wish to receive information about these, email [plantscience@friendsanbg.org.au](mailto:plantscience@friendsanbg.org.au)

**Lesley Harland**



**Always welcomes Friends...**

...with a 10% discount on purchases over \$10 (including gift vouchers) on presentation of their current membership card.

No discounts given on redemption of gift vouchers or sale table items.

For more information please visit the Botanical Bookshop Facebook page, Instagram or website

**[botanicalbookshop.com.au](http://botanicalbookshop.com.au)**

# Friendly Chatter (cont.)

## Friends Benefits

### As a Friend you are entitled to:

- Three issues of *Fronds* a year
- Three hour free parking pass

### Discounts at:

- Botanical Bookshop (most items)
- Pollen
- Jindii Eco Spa
- Cool Country Natives, Pialligo
- Australian Choice, Canberra Centre

### You also receive:

- Advance details of lectures
- Advance bookings for some events
- Discounts on some events
- ANBG library membership – borrow books, serials, videos and DVDs, and use computers and interactive CDs
- Special rates for functions at ANBG

### You can join:

- Botanic Art Group
- Growing Friends
- Photographic Group
- Plant Science Group
- Nature Journaling Group
- Assist with ANBG research projects
- Become a guide

And you can relax with tea/coffee and interesting reading material in the Friends Lounge in the Ellis Rowan Building, open 9.30 am to 4.30 pm.



## Photographic Group

The Photographic Group has been busy with regular Friday gatherings and interesting guest speakers. In April we heard from Christy Froehlich who spoke in detail about the wonderful world of water bugs and macro photography. In May, Karleen Minney, photographic editor for the *Canberra Times*, gave us much food for thought on what judges might be looking for in photography competitions and exhibitions. In June we heard from Heino Lepp on his work with fungi and how he approaches photographing these wonders of the natural world. We look forward to hearing about Bird Life Australia's 'Birds on Farms' project in July. In August, September and October our own members will run practical sessions on macro and post-processing. In November we will hear from Rainer Rehwinkel on plant community ecology.

In the meantime several members will be busy helping to judge the ANBG School Student Photographic Competition.

There have been two very successful new initiatives this year. Several weekend 'Cameras and Cafe' Gardens walks have been held and enjoyed by attendees. We have also begun supplying the Gardens' social media staff with high quality images for Facebook and Instagram.

*Illuminate 2024* is this year's annual photographic exhibition. Our exhibition includes plant portraits, close-up shots of flowers, birds and insects, intimate landscapes within the Gardens and fauna from our local region. All photographs exhibited are for sale and, given exhibition timing, they make great Christmas presents. We will also have other items for sale, such as unframed prints, cards, and specialty calendars by individual members.



Graham Gail

Phil Green, next to his image *Mum feed me*, and Peter Byron, Director of ANBG.

The exhibition will be open to the public from Thursday 28 November to Sunday 15 December 2024, from 9.30 am to 4.30 pm at the ANBG Visitor Centre. The David Cox Memorial Award theme for this year is '*Grevillea*'.

Each year the Friends Council purchases and donates a selected frame from the exhibition to the Gardens. The 2023 selection was captured by Phil Green.

Members have also been busy assisting the Friends Council with photographing events; some of the products of which appear in this edition of *Fronds*.

**Phil Green**

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Australian National Botanic Gardens

# Gardens Shorts

## Director's Report

It's been a busy and productive period for the ANBG over the last few months. Visitation numbers to date have been higher than any other year on record and the number of visiting school groups continues to grow. MEGAfauna once again proved to be a popular event, bringing in many visitors over the July school holiday period. The ANBG is also on the new Canberra Monopoly board alongside many of Canberra's key attractions. Canberra Monopoly is available for sale at the Botanical Bookshop.

There have been many changing faces around the Gardens over the past few months. We are impressed with the new Volunteer Guides who have successfully completed their 8-week training and it's great to see them in action. Meanwhile our Conservation Manager Zoe Knapp has been promoted to Park Manager of Norfolk Island National Park. While she will be missed around the Gardens we congratulate Zoe on this great career opportunity. Recruitment has also been underway for staff positions in the Visitor Experience, Horticulture and Seed Bank teams.

The new Plant Science Learning Hub, available at [learn.anbg.gov.au](http://learn.anbg.gov.au), is being extensively promoted to primary school teachers throughout Australia. We thank the Friends for their contribution to the development of this new educational product.

The Visitor Centre foyer exhibition, another Friends-funded project, should be finalised by the time this issue of *FronDS* is published. This permanent exhibition tells the 'behind the scenes' story of our work at the National Herbarium, the National Seed Bank, and nursery, and highlights the conservation role of the ANBG. Many thanks to the Friends for funding this new exhibition.



Refurbished Otto Ruzicka shelter in Section 37, north of the Rainforest Gully.

Major infrastructure projects are progressing across the site. The National Seed Bank is having a major upgrade of the facility. This investment will see the doubling of seed storage capacity and improved research capability while providing better staff accommodation and meeting expansion needs for the foreseeable future. We are in the process of finalising a contractor to undertake these works.

We are also working to procure a new builder to complete the Ian Potter National Conservatory with the original builder having entered voluntary administration in March. The tropical plant collection destined for the Conservatory is in excellent condition in the nursery greenhouses. Finally, we are continuing to share our important work with our Australian and international colleagues. This August I will be representing the ANBG at the Global Botanic Gardens Conference in Singapore. We have been selected to provide presentations on our volunteer program, the Plant Science Learning Hub, the Conservatory and tropical plant collection, and our threatened species program.

In November 2025 the ANBG will host the Botanic Gardens Australia/New Zealand conference. We look forward to these opportunities to make connections and share knowledge with botanic gardens around the world.

**Peter Byron**  
Director of ANBG

## Tasmanian garden upgrades

The Tasmanian Garden is currently receiving upgrades with the installation of a new fogging system and re-construction of the Otto Ruzicka shelter near the lower bus bays of the car park.

The fogging system, which has been funded by the Friends, will help to create a microclimate beneficial to our Tasmanian plants and will be built to allow extensions to the system in the future.

The new shelter will provide refuge for visitors, enhancing the visitor experience in the often-overlooked lower Gardens precinct. Reinstating the shelter, designed by landscape architect Otto Ruzicka in 1967, will return the area to its original design intent and be in keeping with the recently refurbished shelter in section 37, north of the Rainforest Gully.

# Gardens Shorts (cont.)

## Progressing conservation trials for critically endangered Imlay Mallee

Earlier this year, Gardens horticulturists joined a special trip to the site of one of Australia's rarest eucalypts.

The critically endangered Imlay Mallee, *Eucalyptus imlayensis*, only grows in a small area on Mount Imlay in south-east NSW. Only 17 genetically individual plants remain, all of which were burned by severe fires in 2019–20.

The Gardens is involved in grafting trials aimed at establishing an insurance population of Imlay Mallee for conservation seed production. During the recent field trip, Gardens staff collected wild cuttings for use in these trials.

Imlay Mallee conservation is undertaken in partnership with NSW Department of Climate Change, Energy, the Environment and Water, NSW National Parks and Wildlife Service, the Office of the Threatened Species Commissioner, and researchers. This work supports critical action under the NSW Saving our Species Program.

## New permanent Visitor Centre installation

A new permanent installation in the Visitor Centre entry foyer will showcase the Gardens role in science and conservation. Highlighting the work of the National Seed Bank, the National Herbarium and the Gardens' Nursery, this new installation will give visitors a glimpse 'behind the scenes', shaping the introductory narrative of the Gardens as a scientific institution and leader in plant conservation. It will also greatly improve the amenity of the foyer space, creating a welcoming environment for visitors.



Anna-Lisa Hayes, Office of the Threatened Species Commissioner

Horticulturist Peter Bredell collecting Imlay Mallee material for grafting.

The Visitor Centre foyer installation project has been partially funded by the Friends and will be completed by August 2024.

## New Volunteer Guides

The Gardens is delighted to welcome 23 new Volunteer Guides to our dedicated and diverse volunteer family. Volunteer Guides provide an essential service to visitors, leading free walking tours twice each day and driving the Flora Explorer electric tour bus on weekends and public holidays.

Becoming a Guide is a significant commitment. To be signed off as qualified Guides our new recruits completed a comprehensive 12-day training program spread across eight weeks, followed by a formal assessment.

Volunteer Guides come from a wide variety of backgrounds. All share a passion for Australian native plants, telling stories and educating others, and all have a love of learning. We look forward to seeing them leading tour groups out in the Gardens.



Sue Norman

Some of the new Volunteer Guides with the Flora Explorer electric bus.

# What's on at the Gardens

## Cycad expert visits the Gardens

In May 2024 Dr James Clugston, Conservation Biologist and cycad specialist at Western Sydney University, visited the Gardens to review our cycad collection. James' research focuses on using and developing new molecular DNA sequencing techniques to investigate genetic diversity and the conservation of cycad species worldwide.

During his review James identified or re-classified 17 collections (35 plants) to species level; identified one naturally occurring hybrid (*Macrozamia fearnsidei* x *M. moorei*); and collected leaf material from a possible new species for DNA sequencing.

Cycads are the oldest lineage of seed plants, covering vast areas of the Earth before flowering plants came to dominance. Cycads are in decline worldwide, with more than 60 per cent of the 376 extant species threatened with extinction. The Gardens' living collections include over 400 cycad plants representing 19 species.



*Macrozamia communis* growing in the Gardens.

## August to December 2024

Details are correct at the time of printing. Please check the Friends website [friendsanbg.org.au](http://friendsanbg.org.au) or the ANBG website [anbg.gov.au](http://anbg.gov.au) for changes and updates.

### Walks, Tours and Trails

#### Guided Walks

**11.00 am and 2.00 pm daily**  
**Free\***

Enhance your visit and discover the spectacular colours of leaves, bark, flowers and seeds in the Gardens with a Volunteer Guide.

#### Themed Rostered Walks

**11.00 am and 2.00 pm daily**  
**Free\***

#### Threatened Species 12–18 August

On this guided walk we will visit some of the rarest plants in Australia, consider some of the threats to their existence and learn about some of the scientific work the ANBG is doing to conserve these plants.

#### Wattle We Call It? 2–8 September

Wattles are acacias, or are they? The first tree called a wattle in Australia is not an acacia at all. The acacias of Africa are no longer acacias. Many of the wattles have leaves that are not leaves. On this free guided walk, hear about some of these paradoxes while visiting a variety of wattles in flower at this time of the year.

\* Meet at the clock near the cafe bridge. No booking required for individuals, but groups of more than six people should contact [walks@friendsanbg.org.au](mailto:walks@friendsanbg.org.au) a week in advance.

## Surviving in a Dry Climate 18–24 November

In this continent we have vast areas of arid and semi-arid landscapes. As summer approaches, this guided walk will show some of the amazing techniques that plants in these areas have developed to survive the heat, the dry, the intense sunlight and even fire.

### Self-guided walks

**Collect a map from the Visitor Centre to begin the trail**  
**Free**

### Flora Explorer Bus Tours

**Saturday, Sunday and Public Holidays**

**11.30 am and 1.30 pm**  
**\$8 adult, \$5 child and concessions**

**Book on ANBG website**

Sit back, relax and be taken on a 45 minute highlight tour of the Gardens.

### Book a Private Tour

**Costs apply**

Tour the Gardens with your own tailored guided walk or Flora Explorer bus tour to suit your special interests, or purchase as a gift. Conditions apply. For more information contact [bookedwalks@friendsanbg.org.au](mailto:bookedwalks@friendsanbg.org.au) or [floragroups@anbg.gov.au](mailto:floragroups@anbg.gov.au)

### Storytime in the Gardens

**First Friday of the month**

**10.00 – 11.00 am**

**\$5 per child, adults and infants under 12-months free**

**Crosbie Morrison Lawn**

**Book on ANBG website**

Join us on the first Friday of every month for family fun with stories about Australian plants and animals. Each themed session is packed with stories, songs and craft. Suitable for pre-schoolers.

# What's on at the Gardens (cont.)

## Removing Woody Weeds from Black Mountain and/or ANBG

**Saturday 3 August and 7 September, 9.00 am to 12.00 noon**

**Saturday 5 October and 2 November, 8.30 am to 11.30 am**

See details on the Friends of ANBG website for the meeting place for each weeding work party. Please book using the booking link on the Friends ANBG website, so there is enough delicious morning tea.

## Botanica Festival

**7–8 September  
10.00 am to 4.00 pm  
Age 18+. \$69–\$79  
Eucalypt Lawn**

Explore the world of Botanica, an immersive Gin, Food and Spirits Festival at the ANBG.

Visit the Botanica Festival [botanicafestival.com.au](http://botanicafestival.com.au) website for details.

## Friends ANBG Schools and Colleges Photograph Competition Exhibition

**28 September to 27 October  
2.00–3.00 pm  
ANBG Banksia Garden  
Free**

The competition is open to students attending Australian primary or secondary schools or colleges. Prize-winning and selected entries will be on display in the Banksia Garden.

## ACT Woodcraft Guild School Holiday Activities

**4–7 October**

Please visit ANBG website.

## Orchid Walks on Black Mountain

**Sunday 6 October  
9.30 am to 12.00 noon and  
1.30–4.00 pm**

Choose your time to discover some spring flowering native terrestrial orchids and learn something more of this fascinating group of plants with Jean Egan, Matt Mullaney, Shoko Okado and Tobias Hayashi.

**MEET:** at the car park on the mountain side of Caswell Drive. Look for Friends of Black Mountain banners (from Belconnen Way drive south towards Glenloch Interchange).

**BYO:** enthusiasm, hat, sunblock, water, stout shoes, a hand lens if you have one, and snacks if you wish.

**BOOK:** Numbers are limited for each walk. Booking links will be on the Friends website about a month beforehand.

## Growing Friends Spring 2024 Native Plant Sale

**Saturday 12 October  
9.00–11.30 am, unless sold out  
earlier  
Banksia Centre Carpark**

Hundreds of grasses, groundcovers, small shrubs and large shrubs will be available for the discerning native plant lover. Plants are only \$6 a pot.

All plants are propagated from cuttings or seeds sourced from within the Gardens. A full list of plants will be available on the Friends website closer to the sale.

Sales will be by card only. All proceeds go to the Friends so that we can help support the Gardens.

Be early as plants sell out fast!

## Australian Native Plants Society Spring Plant Sale

**19 October  
8.30 am  
Southern Car Park, ANBG**

## Sunset Cinema

**23 November 2023 – 24 February 2024**

**Every Wednesday, Thursday, Friday and Saturday nights (except Christmas and New Years)  
Eucalypt Lawn**

Canberra's favourite outdoor cinema returns this summer for another season of movies under the stars. With their signature mix of new releases, family favourites and timeless classics, enjoy this summer's best movies along with delicious food, beverages, and popcorn at the Gardens!

Visit the Sunset Cinema website for details [sunsetcinema.com.au/canberra](http://sunsetcinema.com.au/canberra)

## 2024 Annual General Meeting

**Thursday 24 October  
3.00 pm  
Gardens Theatre**

The 36th AGM of the Friends of the ANBG will be held on Thursday 24 October, followed by light refreshments in the Dickson Room.

See page 13 for details.

## Spring Wildflower Ramble

**Saturday 12 October  
9.30 am sharp to 12.00 noon or later  
Book on Friends of ANBG website**

The very popular Annual Spring Wildflower Ramble celebrates the spring flowering on beautiful Black Mountain with a social ramble for wildflower lovers in the tradition established by Nancy Burbidge, continued by George Chippendale, and then Jean Geue.

Discover the surprising diversity of tiny orchids, bush peas, wattles and billy buttons on easy bush tracks with experienced guides and good company. All springs are not the same.



Photographing flowers on Black Mountain.

The pattern remains but timing and abundance vary with the weather; after the rain we have had this year we are anticipating a special display of flowers. Friends of Black Mountain welcomes everyone, be they experts or those who have never slowed down to see the somewhat cryptic diversity. We plan several guides, with helpers, who will take different directions.

There will be some books for sale, including *Black Mountain: A natural history of a Canberra icon* by Ian Fraser and Rosemary Purdie.

Meet at the Belconnen Way entry just before Caswell Drive turnoff – watch for balloons or banners. **Please allow time to park and walk to the meeting point.**

BYO morning tea, water, hat, sunblock and stout shoes.

Donations welcome (suggested donation is \$5).

**BOOKINGS ARE ESSENTIAL** to ensure we have enough guides. Please use the booking link on the Friends of ANBG website a month before the walk. This will help us to contact you if changes are needed at short notice (eg bad weather).

If you have problems with online booking, please email the names, addresses, and phone numbers of each person you are booking for to [friendsofblackmountain@gmail.com](mailto:friendsofblackmountain@gmail.com)

## Exhibitions

Visitor Centre Gallery

Open Daily 9.30 am – 4.30 pm

Free

**31 July – 1 September**

### Arbour

*Arbour* is an exploratory series of drawings and prints focusing on the rich diversity and meaning embedded in the form and structure of trees. This relates not only to their aesthetic significance but also reflects a range of emotional states such as vulnerability, resilience and our deep psychological connection to arboreal landscapes. The impending impact of climate change has rendered this connection of even greater significance.

**4–29 September**

### ACT Porcelain Artists: A Walk in the Bush

*A Walk in the Bush* celebrates the Australian bush and the beauty and diversity within. Australia's unique flora, fauna and scenery have been artistically hand painted on porcelain and fine bone china. Each artwork, from the smallest jewellery piece to the largest vase took many weeks to complete – designing, painting and firing many times – until the artist was satisfied with the composition and depth of colour of the piece.

**2–31 October**

### Garden Promenade

Local Canberra artist Sharon Peoples hopes to draw our attention to the achievement of Sarah Sophia Banks. Sarah's prodigious work has been dwarfed by that of her well-known brother Sir Joseph Banks' achievements.

**5–25 November**

### Above/Below: Cyanotypes

*Above/Below* is a group exhibition by artists who are inspired by their love of ferns, fungi, lichens, liverworts, moss, hornworts and algae. The 30 works are a diverse range of media from textile art, botanical illustration, jewellery, photography, ceramics and mixed media. Each artist has studied and then interpreted a cryptogam for this exhibition.

**28 November – 15 December**

### Illuminate 2024

The annual Friends Photography Group exhibition includes plant portraits, close-up shots of flowers, birds and insects, intimate landscapes within the Gardens and fauna from our local region. The David Cox Memorial Award theme for this year is '*Grevillea*'.

# Thursday Talks

## August to December 2024

One hour talks are held at 12.30 pm every Thursday from February to November in the Gardens' Theatrette. We welcome donations by gold coins, notes or electronically. The Friends use the donations received to support Gardens' programs and development and thank all those who have donated.

It is a good idea to reserve a seat at the talks that you wish to attend; talks can book out very quickly. The booking link is on the [friendsanbg.org.au/calendar](https://friendsanbg.org.au/calendar) entry for the talk. Bookings can be made about 30 days in advance of the Wednesday night before the talk.

The Friends of the ANBG thank the speakers who volunteer their time and talents to further the knowledge of all attending events in the Gardens. Some summaries or PowerPoint presentations of Thursday Talks are available from the ANBG library. Please direct queries to [talks@friendsanbg.org.au](mailto:talks@friendsanbg.org.au)

## August

**1 August**

**Jo Harding**

**Taxonomists don't stuff things**

Jo, Bush Blitz Manager, will explain the who, what and why of what Bush Blitz does. Who are these weird people that are so fascinated with insect genitals? What is this information used for? Why do we care about these new species?

**8 August**

**Dr Ana Gracanin**

**Why hollow there! The importance of tree hollows for Australian native fauna**

Ana, from the Fenner School of Environment and Society at ANU, will talk about how hollows are created, how different animals, including gliders, use them, and how we can support wildlife in our backyards.

**15 August**

**Jay Nicholson**

**Plant dieback and drought tolerance in Uluru-Kata Tjuta**

One of the world's most stunning and unique places is one of the places most at-risk to the impacts of climate change. Jay, a PhD student at ANU, will outline what has been discovered so far as he and Anangu people design and use field studies and nursery experiments to answer questions about how plants cope with heat and water stress.

**22 August**

**Dr Keith Bayless**

**The wonder of tiny dark flies**

Keith, a research scientist at CSIRO, says flies are one of the most diverse insect orders, yet poorly known in their species richness and evolution. He will describe innovations in the field and lab for understanding how, when, and why small dark, coloured flies diversified spectacularly.

**29 August**

**Violet Marriott**

**Ginninderry Conservation Trust: Who we are and what we do**

Violet, from Ginninderry Conservation Trust, will provide insights into the Trust, its community engagement, and the current on-ground activities taking place to help protect and conserve the cultural and environmental values of the Ginninderry Conservation Corridor.

Below left: Jay Nicholson and his colleagues surveying plants at Uluru-Kata Tjuta. Below right: Shepherds Lookout view of Murrumbidgee river and conservation area.



Provided

## September

**5 September**

**Dr Marita Bradshaw**

**The National Rock Garden: New location, new rocks and new stories to tell**

Marita, steering committee member with the National Rock Garden, will present an update on the expanded rock garden, the stories it tells of the deep history of Australia and the recent move of the big rocks into Forest 13 at the National Arboretum Canberra.

**12 September**

**Anthony Whalen**

**CSIRO has a new building: What will this mean for Australia's national biodiversity collections?**

Anthony, Director of the National Research Collections Australia CSIRO, will outline the careful planning for CSIRO and ANBG's precious national collections of preserved plants, vertebrate and invertebrate animals and other organisms, and how new laboratories and technologies will contribute to new ways to do biodiversity research.



Provided

## 19 September

### **Dr Tobias Hayashi** **The sexual chemistry of** **greenhood orchids**

Tobias will talk about research from his PhD at ANU on pollination in Greenhood (*Pterostylis*) orchids. Greenhood orchids attract their male fungus gnat pollinators by mimicking the sex pheromones of the female fungus gnats.

## 26 September

### **Professor Nerilie Abram** **Emerging tipping points in** **Antarctica**

Nerilie, climate scientist from ANU, will review evidence for climate change vulnerabilities in Antarctica, including using past, present and future perspectives to assess the potential for tipping points in Antarctica and the Southern Ocean. This will include a description of the 2023–24 Denman Terrestrial Campaign to characterise the Denman Glacier, the deepest known glacier on Earth.



Nerilie Abrams at Bunger Hills, 2023.

## October

### 3 October

#### **Dr Alex Wall** **Traps 'n' Maps: Collecting data** **today to better understand the** **past tomorrow**

Alex, from the ANU, will talk about the value of fossilised pollen for understanding environmental changes over time, and measuring the amounts and types of pollen across Australia today to understand the links, including collection by VegeMap, a citizen science project.

## 10 October

### **Graham Gall** **Flora in focus: The art of botanic** **photography**

Graham, an internationally awarded photographer, will describe his artistic approach to photographing botanic subjects and will give practical insights into producing exhibition quality shots of flora and associated fauna, from the tallest tree to the most detailed macro view of flowers, fungi and associated pollinators.

## 17 October

### **Don Beer Memorial Lecture 2024** **Dr Rebecca Pirzi** **Bending the biodiversity curve**

Rebecca will provide perspectives on achieving transformational change to conserve biodiversity in striving for nature restoration and a nature positive future.

## 24 October

### **Anna Howe** **Southern California meets** **Australian native in Canberra in** **the 1970s**

Anna will look at how the influence of southern Californian ideas for town planning and architecture were overtaken by the Australian native garden movement in Canberra. Some shared characteristics of both areas now face some common challenges that raise concerns about the future of our Bush Capital.

## 31 October

### **Dr Mitzy Pepper** **How geomorphology controls** **biodiversity (especially lizards) in** **the Australian deserts**

Mitzy, an ARC DECRA Fellow at ANU, will focus on the exciting synthesis of biology and geomorphology in understanding the evolution of both the biodiversity, and the landscapes of the Australian deserts.

## November

### 7 November

#### **Shelley Rowntree** **How did *Chrysocephalum* daisies** **evolve and what affects their** **breeding and conservation now** **and into the future?**

Shelley, a holder of a Friends ANBG scholarship, will look at questions about the *Chrysocephalum* genus, the limits of its species, and dominant processes affecting the breeding and conservation of *Chrysocephalum*.

### 14 November

#### **Josh Coates** **Australian alpine pollinators in a** **changing world**

Josh, a PhD student from the Fenner school at ANU, will present his research in pollination ecology in Kosciuszko National Park, from the community level down to a few case studies of charismatic species such as the Bogong moth.

### 21 November

#### **Tasha James** **Endemics on the Edge:** **Investigating threat** **management in an island** **population of endangered** **endemic species. A case study at** **Mt Imlay, NSW**

Tasha, recipient of the Don Beer Memorial Scholarship, will explore if and how endemic species on Mt Imlay might persist in situ in the face of different threats, and to build knowledge to inform effective in situ and ex situ conservation strategies.

### 28 November

#### **Prof Peter Kanowski** **Reviving the Arboretum Dream:** **The making of the National** **Arboretum Canberra**

The National Arboretum Canberra was more than 100 years in the making; a large arboretum was envisaged as part of Canberra's design from the outset. Peter Kanowski will reflect on how that longstanding idea finally took shape, and the shape it took.



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