

# *Fronds*

*Friends of the Australian National Botanic Gardens*

*Number 102 December 2022*





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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.

Design and layout: Sharon Abrahams

Printing: Union Offset Printers

ISSN 2207-6492

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Front cover: Chequered cuckoo bee (*Thyreus caeruleopunctatus*) on *Crocea exalata* in the ANBG. A 'cuckoo' bee because it lays its eggs in the nest hollows of blue-banded bees.

# ANBG's seed science research on the international stage

## Dr Lydia Guja and Dr Gemma Hoyle

Our work as seed scientists in the ANBG's National Seed Bank (NSB) has a strong research focus on seed biology and ecology to inform management and conservation of plants. So, after years of travel bans and online meetings, we were excited to attend, in person, the seventh Seed Ecology Conference of the International Society for Seed Science in Spain. The conference from 5–10 September was hosted by the University of Oviedo and the Jardín Botánico Atlántico (Atlantic Botanic Garden) in Gijón/Xixón, northern Spain, and was attended by 100 delegates from 23 countries.

Talks addressed all aspects of seed ecology, including:

- macroecology and evolution of seeds
- seed dispersal and plant-animal interactions
- theory and methods in seed trait ecology
- seed functions in plant communities
- seed-based restoration and conservation
- environmental control of seed germination timing.

Between us, we made several contributions to the scientific portion of the conference, chairing sessions, delivering two oral presentations and two posters, and co-authoring a further three presentations.

Lydia presented research undertaken by ANBG and the University of New South Wales to understand the environmental and genetic controls of seed germination in the genus *Pomaderris*, including many rare species of conservation concern.

Adult plants are killed by fire therefore species persistence relies on regeneration by seed. The study found that seed



Lydia Guja

Gemma presenting 'Impact of red:far-red light ratios on germination in Australia's tropical mountain cloud forests' in the 'Environmental control of seed germination' session of the SEVII conference.

dormancy was alleviated by hot fires which appear necessary to enable germination. Genetic differences (polyploidy) meant that some species were likely to have more recruitment success than others after fire.

This research is of relevance to conservation biologists and threatened species managers in understanding post-fire recovery of the environment. There is significant international interest in bush fire recovery. Presenting this work at Seed Ecology VII demonstrates ANBG's increasing commitment to plant conservation and research. Published in *Frontiers in Plant Science*, the study is available from [doi.org/10.3389/fpls.2021.779651](https://doi.org/10.3389/fpls.2021.779651)

Gemma presented research conducted in collaboration with the Australian PlantBank, Australian Tropical Herbarium and James Cook University. Australia's tropical mountain cloud forest (TMCF) is restricted to northeast Queensland and contains many endemic seed-bearing species at substantial risk of extinction. Virtually nothing is known about environmental factors determining the distribution of these species, which limits our ability to

quantify and project the vulnerability of TMCF flora to climate change.

This study investigated the importance of light quality on germination using sunlight and polyester filters to create a gradient of different red to far-red ratios similar to what seeds would experience on the forest floor.

Results suggest that light quality and quantity permits fine scale discrimination of germination conditions in TMCF and help explain the habitat preference of adult plants now and into the future.

This contribution to the global TMCF literature is significant. Presenting it in an international forum strengthens Australia's place in TMCF research and conservation. Gemma is aiming to publish this study in a special edition of *Australian Journal of Botany* on Australasian seed science in 2023.

Our presentations generated positive discussion and questions. Delegates were interested in the under-studied topics and innovative approaches, including how they might apply them to the study of polyploidy and light requirements in seeds of their own flora.



# ANBG's seed science research on the international stage (cont.)

We also presented posters that promoted the recently updated Australian Network for Plant Conservation's guidelines. The posters covered guidelines for translocation of threatened plants, restoration use of seeds (Florabank Guidelines), and ex situ conservation of germplasm (produced with Australian Seed Bank Partnership).

Discussions during the poster sessions highlighted the strong seed banking and research partnerships across Australia that have enabled the production of such resources. Many conference participants commented that these publications will be invaluable to their work. *Plant Germplasm Conservation in Australia*, of which we are co-authors, is available from [anpc.asn.au/plant-germplasm](http://anpc.asn.au/plant-germplasm)

As conference delegates, we were treated to a guided tour of the Jardín Botánico Atlántico and an excursion into the Cantabrian Mountains. The botanic garden spans 19 hectares and includes various botanical collections including re-creations of the Cantabrian environment and ecosystems of Atlantic Spain, a 'Plant Factory' dedicated to plants that are common in our daily lives (as food, medicines, fabrics or religious symbols), a historical garden

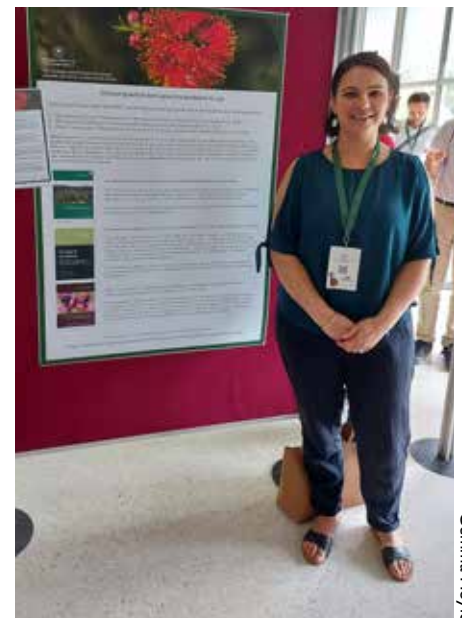
from the 19th century, and the 'Atlantic Route' showing biomes from both sides of the North Atlantic (European temperate forests and the American and European boreal biomes). There are also two natural forests within the gardens that have survived the urban expansion of Gijón/Xixón: the alder forest of the Peñafrancia river and El Tragamón oak forest with century-old trees.

The Cantabrian Mountains run east-west in parallel to the coast and reach elevations over 2,000 m, with the highest summit at 2,648 m. The flora of the Cantabrian Mountains includes around 2,300 species and subspecies of vascular plants in a relatively small area (15,000 km<sup>2</sup>) as the result of a complex terrain and being at the intersection of several biogeographic regions.

Montane forests are dominated by beech (*Fagus sylvatica*) in the northern slopes and marcescent oak (*Quercus pyrenaica*) in the southern slopes, together with at least ten different forest types described in the region. Above 1,700 m, forests are naturally replaced by subalpine heathlands and brooms, followed by small fragments of alpine grasslands. A few valleys of the Cantabrian Mountains are also current refugia for Spanish Juniper (*Juniperus thurifera*) and Scots Pine (*Pinus sylvestris*).

The conference culminated in a chance to socialise with new and old friends, enjoy Spanish tapas and locally produced cider, and reflect upon the many take-away learnings from the meeting:

- Thanks to Covid-19 and lockdowns, 2020–21 was 'the year of the meta-analysis', pooling data already collected to examine ecological correlates of seed traits.
- A rise in macroecology studies aiming to understand seed function at global scales.



Gemma Hoyle

Above: Lydia presenting a poster on the recent ANPC/ASBP publications: *Guidelines for the Translocation of Threatened Plants in Australia* (3rd Edn), *Florabank Guidelines* (2nd Edn), and *Plant Germplasm Conservation in Australia* (3rd Edn). See [anpc.asn.au/product-category/publications](http://anpc.asn.au/product-category/publications)



Gemma Hoyle

Left: The Cantabrian Mountains or Cantabrian Range are one of the main systems of mountain ranges in Spain. They stretch for over 300 km across Northern Spain, from the western limit of the Pyrenees to the Galician Massif in Galicia, along the coast of the Cantabrian Sea.

- Increasing application of seed ecology for successful threatened species conservation and landscape restoration.
- Long-term studies now becoming possible following 20+ years of seed bank storage.
- Resurrection of extinct species becoming increasingly possible thanks to well-managed herbarium specimens that fortuitously contain seeds, and seed bank collections.
- International interest in post-fire seed ecology with the rise of bushfires across the world, including Europe.
- Micro-climate data and how this is critical to understanding and investigating seed ecology.
- How the diversity among seeds will help to buffer the effects of climate change.
- The global deficit of tropical seed trait data.
- The need to share data in international seed and germination trait databases (resulting in the launch of a new international database for primary seed germination data, [unioviado.es/seedarc](http://unioviado.es/seedarc)).

Following the conference, we feel inspired to incorporate these concepts and approaches into our work at the NSB, to continue to improve our understanding of the ecology of Australian native seed-bearing flora.

The Conference website is [unioviado.es/seedecol7](http://unioviado.es/seedecol7)

The Atlantic Botanic Gardens website is [gijon.es/es/directorio/jardin-botanico-atlantico-de-gijon](http://gijon.es/es/directorio/jardin-botanico-atlantico-de-gijon)

## About the authors

Dr Lydia Guja is the Manager of the ANBG's NSB and a seed conservation biologist. Lydia's research focuses on achieving applied conservation outcomes for native Australian plants, through an understanding of the biology, ecology and stress tolerance of seeds.



Lydia Guja



Lydia Guja

Top: 400-500 year old oak tree in remnant forest at the Atlantic Botanic Gardens.

Above: Conference attendees admiring an original seed bank, a >100 year old grain store (panera) in the 'Plant Factory' section of the Atlantic Botanic Gardens.

Dr Gemma Hoyle is a seed scientist at the NSB and is responsible for designing, carrying out and reporting on research projects. Her work focuses on seed germination, dormancy and longevity to improve the conservation and management of Australia's native flora.



# A tale of two gardens and native bees

## Peter Abbott

I first wrote in *FronDS* about five years ago with my plans to study the native bee population in the Gardens. At that time, little was known about which bees lived in the Gardens. Despite weather setbacks and Covid-19 restrictions, the bees and I have become better acquainted, and I now have a pretty good handle on which species live in the Gardens.

The ANBG has at least 120 different species from four of the five bee families that occur in Australia. The ANBG population presumably reflects the broad range of native bees that exist all over the ACT region. They are just easier to see in the Gardens because it has an ideal living environment with its many and varied native plants, so we see both a broad diversity of native bee species as well as high numbers of individual species.

Of course, once you start looking for native bees you start to see them everywhere, so my interest has expanded more broadly across the ACT, the NSW South Coast, and beyond. Many of the species found in the Gardens are widely distributed across Australia, while others are more local, and are adapted to suit the local conditions. Overall, Australia has approximately 2000 native bee species.

Many of the bees recently observed in the Gardens by me and others have not been recorded in this region previously, according to the Atlas of Living Australia (ALA) database. This is in part due to the difficulty of identifying some individual native bee species, but also demonstrates how little we know about our local native bee population.

I have also been recording the native bee population in my own suburban garden, which has a reasonable, but not huge, number of native plants. Looking at my records over the same five-year period, I realised that I have observed over 50 different species, and the majority of these were on one host plant, the water gum, *Tristaniopsis laurina*, which has an abundant display of small yellow flowers in a good year.

My conclusions are:

- To get a good sense of the native bee population of a particular area, it is necessary to make observations over an extended period. The last summer season (2021–22) was a particularly poor season for native bees and possibly for all insects.
- While a large native garden like the ANBG offers the best environment for native bees, a small suburban garden can also host a wide variety of native bees, and some individual plants can attract a surprising number of different native bee species.
- While bee populations fluctuate annually, it is clear that a mixture of native flowering plants offers the best environment to support our local native bee population.



A leafcutter bee, *Megachile macularis*.



*Lipotriches ferricauda*.



A masked bee, *Hylaeus primulipictus*.

## About the author

Peter is the author of the recently published *Native bees of the ACT and NSW South Coast – a spotter's guide*, available from the Botanical Bookshop at the ANBG and online at [NativeBeesACT.etsy.com](https://NativeBeesACT.etsy.com)

# Christmas Island National Park – a unique ecosystem

**Peter Byron**

**General Manager, ANBG**

In September and October this year, I was fortunate to have the experience as acting Park Manager on Christmas Island. The island is one of the network of Commonwealth reserves managed by Parks Australia, along with the ANBG.

Christmas Island is a unique ecosystem containing 253 endemic species only found on the island, that have evolved more than 1500 km from the Australian mainland. At least 20 plant species are found nowhere else in the world. The national park covers 63 per cent of the island and adjoins land used for phosphate mining and the township, with a population of around 1800 people.

Of significance are the Dales, a uniquely structured crab-dominated rainforest, listed under the Ramsar Convention as 'Wetlands of International Importance' and home to 20 endemic flora species. The Dales Waterfall Fern, *Pneumatopteris truncata*, is a nationally recognised critically endangered species with fewer than 50 mature individuals, found near the waterfall. The ANBG is playing a major role in the conservation of this species through storing spores in the National Seed Bank and propagation of over 80 plants in the tropical greenhouses at the ANBG Nursery. The fern will be on display in the Ian Potter National Conservatory when it opens in 2023. I visited the Dales Waterfall on several occasions and photographed the fern thriving on the wet rocks next to the waterfall.

The island is renowned for being the 'kingdom of the crabs' with the world's most abundant and diverse range of land crabs – over 20 species are recorded including an estimated 40 million endemic red crabs, one of the world's largest populations of robber crabs and endemic blue crabs.



An estimated 40 million red crabs are a keystone species to Christmas Island's biodiversity.

Peter Byron

The Christmas Island red crabs are a keystone species to the island's biodiversity. They help to manage the understory-free forests that are characteristic of the island and impart resilience to the island against some introduced species. I witnessed the devastating impact of super colonies of introduced yellow crazy ants on the red crab population. An introduced biological control is having an impact on the ants along with a very effective, although labour intensive, ant baiting operation by national park staff.

The staff manage a captive breeding facility for Blue-tailed Skinks and Lister's Geckos that are extinct in the wild. Feral cat management has been undertaken since 2010; more than 1,900 cats have been removed from the island during that time.

During the red crab migration season, the park staff become involved in traffic control and raking crabs from the roads as they make their way to the ocean, creating a carpet of red crabs throughout the island.

Life on the island can be challenging. The small community only gets fresh food deliveries every second week, with



There are fewer than 50 mature individual Dales Waterfall Ferns, *Pneumatopteris truncata*.

Peter Byron

most goods being delivered monthly by ship, which is often delayed. Prices for food, materials and fuel are high.

I was impressed by the resilience and commitment of the national park staff. They work in a rugged tropical environment on numerous conservation and invasive species programs and are highly respected by the local community.



# Friendly Chatter

## Botanic Art Group

The Botanic Art Group has resumed meetings three times a month and plans are underway for exciting projects in the coming year.

In recent months, some members have been working on illustrating plants in the Greenhouse in pen and ink as part of the Ian Potter Conservatory project. These illustrations will be reproduced to assist visitors to identify plants in the Conservatory.

Organisation of our 16th annual exhibition is under way. This popular exhibition will be held in April 2023, with a special focus on alpine native plants. Following this we hope to hold a very special additional exhibition in combination with the Republic of Korea's Botanical Art Group who will bring paintings of their native plants. An equal number of paintings of Australian plants will be on display by our own members.

Workshops are being planned for members at a minimal cost in the new year. The workshops will be an opportunity for beginners as well as interested members to learn a variety of techniques using watercolours and coloured pencils. We are fortunate to have a number of skilled botanical artists who have generously offered to share their knowledge.

Members of Friends are always welcome to join the Botanic Art Group. Why not try something new in 2023? For more information contact

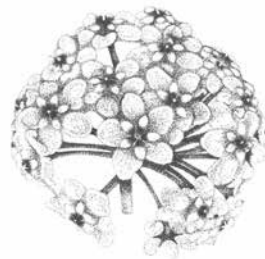
[botanicart@friendsanbg.org.au](mailto:botanicart@friendsanbg.org.au)

**Kate Ramsey**



*Hoya pottsii*

*Hoya pottsii*



*Drynaria rigidula*

Pen and ink illustrations for the Conservatory project. Top and centre: drawings of *Hoya pottsii* by Jacqui Gilleland. Bottom: *Drynaria rigidula* by Cornelia Buchen Osmond.

## Growing Friends

The *Getting Ready for Spring* sale in August was the first public sale that the Growing Friends had been able to host since November 2019. The sale was keenly anticipated by native plant enthusiasts, with many arriving early to snap up plants which are otherwise unavailable or often hard to buy elsewhere. The sale also attracted many new gardeners and those unfamiliar with native plants. Growing Friends' members were kept busy helping these people select plants to best match their personal gardens.

The sale raised over \$7,500 for the Friends of the Gardens.

Two months later, at the time of writing in October, it was pouring rain ... again! But 'hail, rain or shine' three Growing Friends members, armed with raincoats and waterproof pants, forged their way into the Gardens accompanied by a ranger, to gather approved cuttings for the cutting session to be conducted with the group the following day. This is the beginning of the process to produce plants for sale to the public.

Many of the cuttings collected were from plants which are not accustomed to as much wet weather as Canberra has seen in the last year. However, as shown in the Gardens, with proper soil preparation and mounding to encourage better drainage, most native plants can be nursed through adverse conditions.

The next sale will be in early Autumn 2023. Details will be available on the Friends' website closer to the time.

The Growing Friends thank the public for their continued support. For more information on native plants or the group, please contact us on the group email

[growingfriends@friendsanbg.org.au](mailto:growingfriends@friendsanbg.org.au)

**Donna Growcock**



## Nature Journaling

Nature Journaling has been well received as a group since starting in June 2021. We have such beautiful gardens to draw upon at the ANBG. For those interested, the group meets on the first Monday of each month.

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

**Lesley Page**

## Volunteer Guides

### Behind the scenes

On any visit to the Gardens, you are likely to see a volunteer guide leading a walking tour or driving the Flora Explorer. Behind the scenes there's a lot that happens to make such a successful guides' program possible.

New guides attend a training program of two or three days per week for five weeks. This is run jointly by ANBG staff and volunteer guides. It includes lectures, presentations and guided walks through different parts of the Gardens. After this intensive program, each trainee works with an experienced guide as a mentor to practise their skills until they are ready to be assessed and qualify.

Each year after they qualify, guides commit to undertaking professional development activities of their own choosing to build on their knowledge and skills.

Guides meet once a month to discuss issues and share information, and there is a professional development session at each guides meeting. These sessions are planned by a committee, taking into account topics that guides have indicated they would like covered. Recent topics have included threatened species, *Eremophila*, symbiotic relationships, and developments in the Gardens.



Images from the Nature Journaling Group, inspired by the Gardens.

The monthly meetings are organised by a convenor and secretary who also do a range of administrative tasks and are the main contact point for the guides and for liaison with ANBG staff.

For each guided walk they lead, guides might spend hours planning the route to showcase what's best in the Gardens at the time, and researching or compiling information.

Special themed walks are a feature of the program several times a year. Some themed walks focus on particular plants. Others have a seasonal theme or highlight other topics. Recent themed walks have focused on acacias, eucalypts, spring flowers, ancient plants and endangered plants. Themed walks are developed by a small working group who devise the route and plan the stops that are relevant to the theme. They prepare detailed notes and then provide training for other guides.

# Friendly Chatter (cont.)

There are three roster coordinators: one for walks, one for Flora Explorer and one for booked walks. They send out the rosters for walks and Flora tours each month, keep track of where there are gaps and ensure all the slots are filled so that visitors can enjoy a walk every morning or afternoon, or a Flora tour each day on weekends. The booked walks coordinator handles enquiries for special booked walks, arranges the schedule and ensures that the required number of guides is available.

It is not possible here to cover everything that goes on behind the scenes, but next time you see a volunteer guide in the Gardens you'll have some idea of what it takes to run such a program – all done by volunteer guides.

**Kerry Moir**

## Jane Keogh resigns as a guide

It was with some sadness that we learnt of the resignation of Jane Keogh, a stalwart of the guides. Jane became a guide in 2005 and served as secretary from 2009 until mid-2014, supporting both Don Beer and myself, as convenors, with her quiet efficiency and thoroughness.

Her technological skills were very useful when she and Jill More set up a Guides wiki, so that guides could share materials electronically, and the pair later oversaw the transfer of these materials to the GuidesWeb. Jane was one of three who administered a Google group for the guides to share the latest news about the gardens, such as which plants were in flower, or where a particular bird was nesting.

Jane was an enthusiastic guide with lots of interesting stories. As a relatively new guide, I had the privilege of working with her in 2011, developing the Bush Tucker walks, with 12 routes, for a national gastronomic conference, when 120 visitors were shown around the Gardens.

Jane shared her knowledge and conducted research as a member of a team that developed a series of iconic plants walks. When we needed to set up a registration team for the Australasian Botanic Guides Conference in 2017, Jane was an obvious choice.

**Glenys Bishop**

## Photographic Group

*Illuminate* is the title of the 11th annual photography exhibition of the Friends Photography Group. The exhibition runs daily from 24 November to 11 December 2022 at the Visitor Centre and is open 9.30 am to 4.30 pm. Entry is free.

The exhibition is a great Christmas gift opportunity. In addition to the framed prints, you can purchase unframed prints, cards, tote bags, and more.

The exhibition highlights the different moods and inhabitants of the Gardens, as seen through the eyes and cameras of a diverse group of Friends photographers. The exhibition includes beautiful lit photos of the Gardens' plants along with creatures that call the Gardens home. It illuminates aspects of the Gardens that visitors may not otherwise be aware of.

In our regular program in July, a group of intrepid photographers braved the cold to go photographing at Tidbinbilla. They were rewarded by a great day. The hope had been to photograph Flame Robins, however they did not cooperate. On the other hand, a very photogenic and cooperative Southern Brown Bandicoot provided the highlight of the trip.

On Friday 25 November our topic was from Jed Pearson of Waterwatch, discussing aquatic macroinvertebrates and the role of Waterwatch in protecting water catchment health.

The Photographic Group welcomes Friends who wish to join or attend our meetings. We welcome anyone with an interest in photography no matter what stage of the journey or type of camera. For information, please contact us on [photo@friendsanbg.org.au](mailto:photo@friendsanbg.org.au)

**Steven Playford**



The Photographic Group enjoying a visit to Tidbinbilla.



# Gardens Shorts

## Vouchering the Gardens' Living Collections

A voucher herbarium specimen is a pressed plant sample with collection data included for future reference. Each plant growing in the Gardens obtained from wild sources is meant to have an associated herbarium voucher to ensure certainty about its provenance, current classification and name.

In May 2019 Rosemary Purdie was appointed the Gardens' Honorary Living Collections Botanist to address the backlog of plants which lacked a voucher. The work involves interrogating and updating information in the Gardens and Herbarium databases, locating plants and monitoring them until they flower, and collecting and processing specimens for incorporation into the Herbarium.

Over the last three and a half years, Rosemary has reviewed almost 3,400 accessions (covering around 1,830 lineages) which revealed around 1,550 vouchers still needing to be collected. Many of these plants will take decades to flower and are flagged with a special symbol in the Gardens database as a reminder to staff. Of the plants 'likely to flower in the near future' category, Rosemary has collected and processed a herbarium voucher from almost 400 accessions, and is waiting for another 200 or so to flower.

Overall, vouchering for the Gardens' very high and high conservation value species is now 'in hand' and the focus will shift to Garden's staff monitoring those accessions too young to flower anytime soon.

During the current flowering season Rosemary expects to make substantial progress on the backlog of species grown in the Gardens to display Australia's floral diversity.



Horticulturist Dan Marges on his way up to collect a voucher for Rosemary from out-of-easy-reach Acacia flowers.

## Conservation and research in action

Earlier this year National Seed Bank experts took a collecting trip to map habitat, survey populations and collect seed of the threatened Kakadu Hibiscus (*Hibiscus brennanii*) on remote location and in collaboration with Traditional Owners in Kakadu National Park.

This native hibiscus is known from only one population in west Arnhem Land in Kakadu. It grows in sandstone gullies and cliffs on Mt Brockman, with a recent survey identifying more than 2,000 plants in the total population.

By mapping its habitat and setting up long-term monitoring plots we can better understand the resilience of the population against threats. Seeds collected across the population range capture the full genetic diversity of the species helping safeguard its survival in the event of a major disturbance.

The Kakadu Hibiscus will feature in the new Ian Potter National Conservatory, currently under construction and set to open early next year.



Kakadu Hibiscus (*Hibiscus brennanii*).

## Seeking new volunteers for the Plant Records Team

Are you interested in a volunteer role that involves working outside amongst the beautiful plants in the Gardens?

Plant Records volunteers work as part of a small team or independently to provide assistance with mapping, monitoring, tagging and labelling the living collection. Increase your knowledge of Australian plants and gain an understanding of how scientific collections and records are managed.

If you are interested or would like further information, please email [volunteer@anbg.gov.au](mailto:volunteer@anbg.gov.au) by 16 December.

# Gardens Shorts (cont.)

## ACT Environmental Educator of the year

Congratulations to Vivienne Pearce OAM, Education Ranger at the Gardens, who has been awarded ACT Environmental Educator for 2022. As one of our most experienced educators, Vivienne delivers and contributes to our range of school programs and mentors new staff to develop their skills to engage and inspire students.

Vivienne has taught, mentored, provoked discussions, led and advocated for the environment with students, parents and colleagues through paid and volunteer work. Previously awarded an OAM for Services to Education, she has leveraged this to speak out and influence others around the importance of a sustainability mindset.

Viv was the ACT nominee for the Australian Association for Environmental Education's Environmental Educator Award, announced at AAEE AGM on 25 October.



Vivienne Pearce

Right above: Minister for Foreign Affairs, Senator the Hon Penny Wong and Laos Deputy Prime Minister and Minister of Foreign Affairs, His Excellency Saleumxay Kommasith, plant a Wollemi Pine at the Gardens.

Right below: Dr Judy West with Member for Canberra Alicia Payne MP at the construction viewing platform of the Ian Potter National Conservatory.

## Special VIP visits to the Gardens

Marking 70 years of diplomatic relations, Minister for Foreign Affairs, Senator the Hon Penny Wong and Laos Deputy Prime Minister and Minister of Foreign Affairs, His Excellency Saleumxay Kommasith, came together for a special tree planting at the Gardens.

As an enduring symbol of the growth of Australia and Laos' friendship, Senator Wong and His Excellency Saleumxay planted a donated Wollemi Pine along the boundary of Gardens' Brittle Gum Lawn, which is now on public display.





## Global Botanic Gardens Congress

Twelve representatives from the ANBG, Australian Biological Resources Study, the National Seed Bank, and the Australian Seed Bank Partnership (all Parks Australia staff) attended the 7th Global Botanic Gardens Congress (7GBGC) in Melbourne in September this year. Hosted by Botanic Gardens Conservation International and Royal Botanic Gardens Victoria, the conference attracted over 500 participants from 36 countries.

The theme *Influence and Action: Botanic gardens as agents of change* focussed on adapting to climate change and exploring greener and more liveable cities.

Conference participants shared examples and case studies of some of the cutting-edge work being carried out in horticulture, conservation, and education in botanic gardens across the globe.

The Parks Australia delegates presented talks, produced several posters, chaired sessions, presented in symposiums and workshops, and contributed to panel discussions. The topics presented by staff were varied and covered a range of active case studies, innovative developments, research and collaborations.

The 7GBGC congress was a great networking opportunity as well as an excellent chance to share and discover what we and other botanic gardens worldwide are doing to help shape our future.



ANBG

Volunteers are being trained and will be on duty to monitor and identify insects – both pests and beneficials – in the new Conservatory.

### Conservatory volunteers begin behind the scenes

With the doors of the Ian Potter National Conservatory opening in 2023, the Gardens have called for pest monitoring reinforcement in the tropical glasshouses. The first pool of enthusiastic and knowledgeable volunteers have recently commenced duty.

With professional backgrounds in teaching, science, trades, public policy and more, the new greenhouse recruits will support Gardens Nursery staff in the tropical greenhouses where plants for the Conservatory are currently being grown. The volunteers will help manage insects, ensuring the tropical plant collection is healthy and looking fabulous for display in the Conservatory.

The volunteers are currently undergoing hands-on training which includes learning about the tropical plants destined for the Conservatory, including species from Kakadu National Park, Cape York and Christmas Island.

The volunteers will be learning about insect identification. By the end of training they will use their new skills to distinguish between pests and the beneficial insects the Gardens use to help control them.

When the Conservatory opens, these volunteers will join a larger group of volunteers to provide front of house support, including interacting with Conservatory visitors, answering questions and monitoring for plant pests.



ANBG

Nursery staff member, Mya Anlezark, examines *Melaleuca viridiflora* specimens from Kakadu National Park, destined for the Conservatory.

# Friends Briefs

## Friends Annual General Meeting

The 34th AGM, held on 20 October 2022 in the ANBG Theatrette, was well attended by Friends and key Gardens staff.

After the minutes of the 33rd AGM were accepted, the President, Neville Page, reported on Friends activities.

## Highlights of the year

The following is a summary of the year's highlights from the President's report. His full report is available on the Friends website at [friendsanbg.org.au/AGM\\_2022](https://friendsanbg.org.au/AGM_2022)

- Membership remained strong, with a total of 2022 memberships current as at the end of September 2022, representing 3,014 individual members.
- A total amount of \$344,680 was paid to the Gardens to fund worthwhile projects, the largest amount of \$315,000 being for the East Core Precinct including the Friends Lawn.
- Growing Friends had a successful plant sale at the end of August, with total sales revenue for the year in excess of \$13,000.
- The Photographic Group was active, with an exhibition in November 2021 raising money for the Friends. Guest speaker meetings and various excursions were a feature of the year.
- Thursday Talks resumed after a temporary break due to Covid-19 restrictions. Twenty five talks were held during the year.
- After a hiatus of two years, the Plant Science Group recommenced monthly activities in April. Five talks were presented, and a visit to the ANBG Nursery also took place.
- The Botanic Art Group continued in full swing, holding an exhibition in April. Over 70 per cent of paintings were sold, with \$5,300 being raised for the Friends.



Brian Moir

The Friends' President, Neville Page, addresses members at the AGM.

- Flowers Fruit and Foliage continued after a short break due to Covid-19 restrictions.
- The recently formed Nature Journaling Group continued its gatherings throughout the year with about 60 Friends members joining the Group.
- Social Events and Activities Group organised five activities during the year, after some earlier disruption.
- Ambassadors to the ANBG and Friends (Pat and Warwick Wright) presented talks to 374 people in 15 outside groups during the year.
- Member communications remained strong, with *Fronde*, email Bulletins and the Friends website being strongly supported.
- Volunteer recognition events have become a regular event at the Gardens to recognise the efforts of volunteers in the Gardens Volunteer Program, as well as convenors and workers for the Friends special interest groups.

All told it has been a successful year in difficult times.

**Neville Page**

## Treasurer's Report

In the absence of the Treasurer, Neville Page presented the Treasurer's Report on behalf of Anne Holmes. The following is a summary, and the full report is available on the Friends website at [friendsanbg.org.au/AGM\\_2022](https://friendsanbg.org.au/AGM_2022)

Membership and finances remain strong and our dedicated volunteers continue to help raise funds as well as the profile of the Gardens. Income for the year was \$174,789, while expenses totalled \$409,465. These figures include the Public Fund. Expenses included donations to the Gardens of \$344,680 for five projects, plus donated artworks:

- Conservation Video: \$9,090
- East Core Precinct, including Friends Lawn: \$315,000
- Metallic Carpenter Bee Signage: \$1,040
- Visitor Exhibition Centre (Design): \$15,000
- Final payment towards the project titled 'Banksia Interps': \$3,950.

The Friends and the Public Fund have committed almost \$124,500 to 30 June 2023 for projects in progress and projects in their final stages of proposal.



CHROFI architects

Construction of the Ian Potter National Conservatory is progressing rapidly.



## Executive Director's Report

As we conclude 2022, life and the Gardens have transitioned into a new post-lockdown busy and productive pace. Visitation to the Gardens this year has tracked at or above average monthly numbers throughout the year. This continues to reflect the value of the Gardens as a safe outdoor space.

Our new Management Plan 2022–32 has passed through Parliament and the final Plan will set the direction for the future of the Gardens and guide its management for the next 10 years.

The Gardens Master Plan complements the Management Plan in guiding the Gardens' infrastructure development to support enhanced visitor experiences, horticulture and research capabilities through 2035.

- The café precinct redevelopment was completed earlier this year supported by funding from the Friends and is now an attractive space for visitors to spend time and enjoy.
- Construction of the Ian Potter National Conservatory is progressing rapidly. The Conservatory is set to open by June next year.
- The design of the new National Seed Bank and Horticulture Centre has been finalised and construction is to begin in 2023.

Besides a major focus on growing plants and preparing landscapes for the café precinct and National Conservatory, our Living Collections team is working to enhance the Brittle Gum Lawn and caring for and curating other sections of the Gardens. Some additional developments include new and repaved paths in the Western Mallee, Sydney Gully and wedding platform; renovations to the shelter in section 37 and new seating at the 'Friends corner' and Crosbie Morrison amphitheatre.



Brian Moir

At the end of the AGM, Neville Page wished Judy West a happy retirement and, on behalf of Council and the Friends, presented her with a small gift.

Our Nursery and Conservation team have worked to develop a National Conservatory horticulture plan for the tropical plant collection. A new Living Collections and Conservation Strategy is underway. Work also continues on the *Survive and Thrive* bushfire recovery project working to refine horticultural techniques to optimise propagation and cultivation of 12 target sub-alpine and alpine bushfire affected species. The team has had many successes this year with different propagation techniques and grafting of many threatened species associated with our collaborative conservation projects.

The National Seed Bank (NSB) is working on 11 externally funded research projects, many involving collecting trips far and wide from Namadgi to Kakadu National Parks. The NSB collections continue to grow with 238 new seed collections this year of 100 taxa, including 11 taxa new to the NSB, and eight new taxa to ex situ conservation.

Several staff from the NSB team have attended and presented research at national and international conferences,

including the 13th Australasian Plant Conservation Conference, Seed Ecology VII International Conference and the Global Botanic Gardens Congress.

Our Visitor Experience team continues to create innovative approaches to attracting and engaging visitors with the stories of the Gardens. Some of the highlights this year include our now signature MEGAfauna event, a #PlantLoversChallenge trail through the month of May linking through QR codes to videos of staff telling their 'plant passion', a Children's art competition and outdoor exhibition and a dynamic program of exhibitions in the Visitor Centre. Our education team has developed a fun and educational online learning space for upper primary students and their teachers to explore the stories and science of Australian native plants, to be launched in the first half of 2023.

I would also like to welcome the new intake of Volunteer Guides who were recruited and trained this year, and our intake of volunteers currently training in the glasshouses for roles in the Conservatory.

# Friends Briefs (cont.)

## Executive Director's Report (cont.)

This will be my final report to you as Gardens Executive Director. It has been a privilege and an honour to be able to work alongside my colleagues and the Friends of the Gardens over the last 13 years. I am proud to have been a part of what the Gardens has achieved over this time and humbled by the dedication, knowledge and contributions of staff, volunteers and Friends of the Gardens.

As you probably suspect I am not disappearing completely. I will continue in an honorary capacity for the National Parks Conservation Trust (Parks Trust) and I have a few activities that I wish to complete. Thank you to the Friends for your ongoing support of the Gardens and all that we do – I greatly appreciate your many and varied contributions.

**Judy West**

## Constitution

A Special Resolution concerning amendments to our Constitution was passed. These amendments are needed to keep our Constitution up to date. The key change that affects members is that proxy voting will now be permitted at annual general and special general meetings.

## Election of Office-Bearers and Council members

The new Council members are:

President – Neville Page  
Vice President – Linda Beveridge  
Treasurer – Anne Holmes  
Secretary – position vacant  
Ordinary members – Alan Henderson, Christianna Cobbold, Masumi Robertson, Kerry Moir.



Life Membership was awarded to Helen Elliot (left), David More (centre), Jill More (not present) and Lesley Jackman (right).

## Life Membership

Four Friends members were awarded Life Membership at the AGM, in recognition of their outstanding service to the Friends. Congratulations and thank you to Helen Elliot, Lesley Jackman, David More and Jill More.

### Helen Elliot

Helen joined the Friends in 2012 and became Treasurer of Friends Council in January 2016. She served as Treasurer for seven years until her retirement earlier this year. She was also Treasurer of the Public Fund Management Committee.

Helen was a tireless and meticulous Treasurer who provided exceptional support to the Friends' various groups and their activities. She was always generous with her time, not only ensuring that financial matters proceeded smoothly but also providing hands-on support in any capacity that would help make functions a success.

### Lesley Jackman

Lesley was elected Vice President of the Friends Council in October 2013, having joined the Council in 2011. She became President in October 2014, and held the position until her term expired in September 2018. She was also the Thursday Talks Convenor for four years from 2012.

Lesley has been a member of the Friends for 18 years. As President she brought a strategic view, thorough appreciation of situations, and a diplomatic approach to issues. During her term the relationship between the ANBG and the Friends deepened to encompass substantial projects such as the Treehouse. Lesley coordinated preparation for the fundraising campaign in 2019 (which was stalled after the hailstorm, bushfire and Covid-19 interruptions to ANBG and Friends activities).



## David More

Joining the Friends in 2011, David was elected to the Friends Council in October 2018 and served until May 2022.

David has provided enormous IT and administrative support to Friends Council. He has been an important member of the Friends website team, and provided significant IT support for GuidesWeb, the Public Fund, distribution of the Friends e-Bulletin, setting up and maintaining the Friends Google workspace and maintaining the membership database. David was responsible for setting up computerised sales systems for the Botanic Art and Photographic Group exhibitions, and for Growing Friends sales.

## Jill More

Jill has been a member of the Friends since 2008 and has been a very active Volunteer Guide and Flora Explorer Guide. She was one of the initiators of the Guides Google Group, and a strong advocate for professional development for the Guides.

Jill is a key member of the GuidesWeb team, and was responsible for the maintenance and update of the initial website from when she joined the team; she was a key member of its subsequent redesign and upgrade in 2018, particularly with the information storage and retrieval aspects.

Jill is a member of the Friends website team for which she has written many articles. She is also a member of the Nature Journaling Group.

Both Jill and David have been active supporters of Friends social activities, the New Members work group, the Thursday Talks team, and active volunteers at Summer Sounds since at least 2010.

## Spring Bird Walk

About 40 Friends gathered at the Gardens on a lovely spring Sunday morning in October for a bird walk.

Led by bird enthusiasts Marion Jones, Lindell Emerton, Richard Arculus and Ben Harvey, we found many birds out and about. Our guides pointed out a huge magpie nest in a large eucalypt in the car park; the maker had scavenged an orange tag so it wasn't hard to spot the nest. An impressive cup-shaped mud nest in an *Allocasuarina* near the pond below the café was inhabited by a Peewit (or Magpie Lark), thus identifying its owner.

We saw a variety of other birds, including an Eastern Yellow Robin, Eastern Spinebills, New Holland Honeyeaters, Red-browed Finches, Spotted Pardalotes, Kookaburras, Bower Birds and of course Crimson Rosellas. Gang Gangs creaked overhead and we glimpsed and heard Yellow-tailed Black Cockatoos flying through the tree canopy.

Thank you to our wonderful bird guides, and to the indefatigable Christianna Cobbold for organising us.

**Barbara Podger**

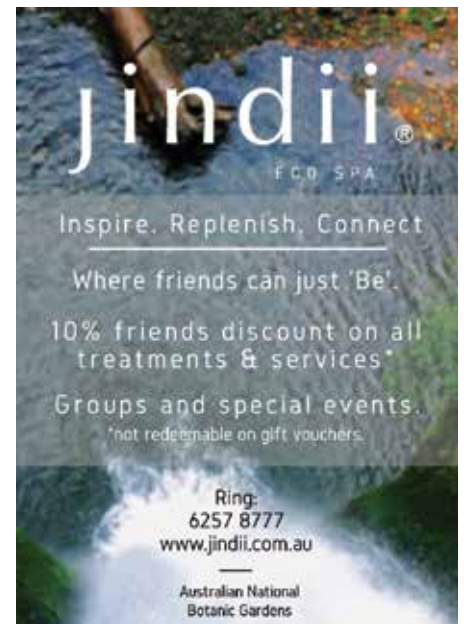


Lindell Emerton



Lindell Emerton

Red-browed Finches (left) and Spotted Pardalotes (right) were spotted on the bird walk.



## Are you receiving the Friends e-newsletter?

Some members have advised that they are not receiving our e-Bulletins. If that is the case, please choose 'e-Bulletins to members' from the Information and Links page on the Friends website [friendsanbg.org.au/infolinks](https://friendsanbg.org.au/infolinks), and subscribe using your current email address. Additional household members can also subscribe to receive the Bulletins at a different email address.

## Friends Briefs (cont.)



Peter Heaume

### Peter Heaume (1947–22)

The ANBG Guides and the Gardens lost a good friend on 24 September when Peter Heaume died after a lengthy battle with cancer. Peter was an enthusiastic guide who emerged from the training group of 2016. As well as his own guided walks, he was known for generously sharing his botanical knowledge with other guides. His involvement also included time as the roster secretary.

Peter was elected to the Friends Council in 2019. He was a member of the Friends 30th Anniversary Subcommittee and took responsibility for commissioning ceramic vases as a 30th anniversary collectible memento.

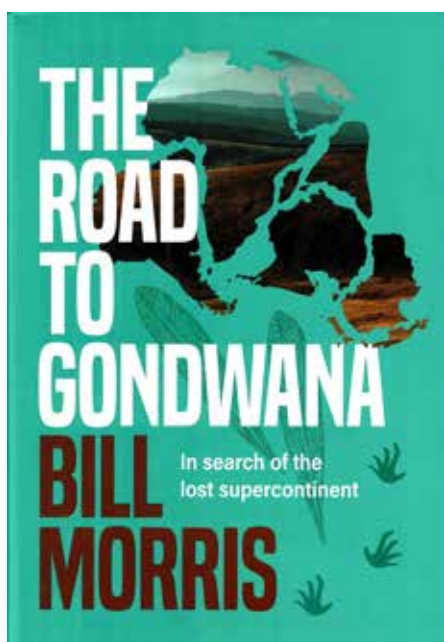
In recent times, and when they could, Tricia Morton and Peter would share

time at Pollen Cafe to have 'chemo talks' and to give encouragement to each other.

Long before he became a guide, Peter was an accomplished woodworker and one of his last tasks with the Gardens was to produce a number of beautiful wooden boxes crafted from aged timber which had been felled in the Gardens. They quickly sold at the Botanical Bookshop, but sadly his plans to continue this activity was cut short by illness.

Peter's funeral service was held at Norwood Park Chapel on 5 October where there were several mentions of his involvement with the Gardens. He is survived by his wife Maree, family and friends.

**Harley Dadswell**



*The Road to Gondwana: In search of the lost supercontinent*, 2022, by Bill Morris. Hardback, 272 pages, colour photographs, illustrations, RRP \$39.99. Available from the Botanical Bookshop.

### Book review

It seems that every botanic gardens I have visited recently makes some reference to the prehistoric supercontinent Gondwana as a key part of our botanical heritage. *Road to Gondwana* is a fascinating narrative of two related journeys.

One is that of human scientific understanding: from the declaration in 1650 by the Archbishop of Armagh that the world, pretty much in its final form, was created by God on Sunday 22 October, 4004BC, to an appreciation of the complex geological and biological processes that gave us Gondwana and all life forms on it.

The second Journey is that of nature: the actual journey to Gondwana itself, starting 750 million years ago (when Rodinia, a former supercontinent encompassing all landmasses above sea level, was starting to break up.

The two journeys are interwoven, with the journey of nature being presented as vignettes across time, interspersed with the history of the science. The final chapter is entitled 'Reckoning' and puts current dilemmas into the context of the timescale of natural history. The final natural history vignette is a conjecture of 250 million years into the future.

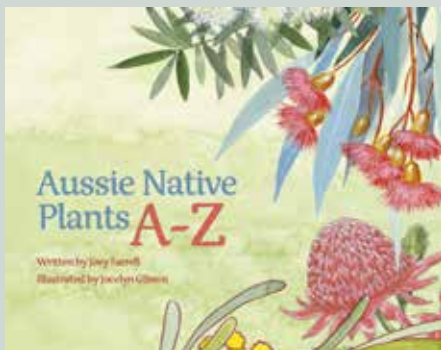
The book would appeal to readers interested in natural history and/or the history of science. It is readable, but sufficiently scholarly to be used as a reference source, incorporating 40 pages of glossary, bibliography and index. Colour illustrations are used effectively to explain geological concepts and to depict likely characteristics of the flora and fauna of the time.

Bill Morris, the author, is a writer and filmmaker based in New Zealand with significant experience in communicating natural history including for the BBC Natural History unit, NHNZ, and *New Zealand Geographic* magazine.

**Denis Warne**



# Botanical Bookshop book reviews

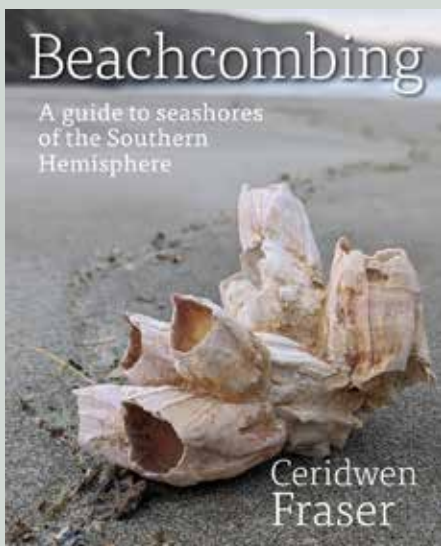


## **Aussie native plants A-Z**

**2022, written by Joey Farrell, illustrated by Jocelyn Gibson**

**Soft cover, 30 pages, colour illustrations, \$20.00**

Take an educational and enjoyable walk through the alphabet and discover fascinating facts and information about a great selection of Aussie flora. Yam Daisies, Xanthorrhoea, Quandongs, Finger Limes, the Gynea Lilly, the Boab tree, Saltbushes ... just a few of the floral gems in this book! Each page contains a fabulous rhyming poem and a beautiful colourful illustration showing the details and special characteristics of each plant. The author has also included an excellent set of facts at the bottom of each page which include other names the plant is known by (including first nations language names) and other 'did you know?' information, including uses of the plant by indigenous peoples, conservation status and threats, and special adaptations of the plant to various environments. The perfect A-Z to introduce young readers to the fascinating world of Aussie flora!



## **Beachcombing – a guide to seashores of the Southern Hemisphere**

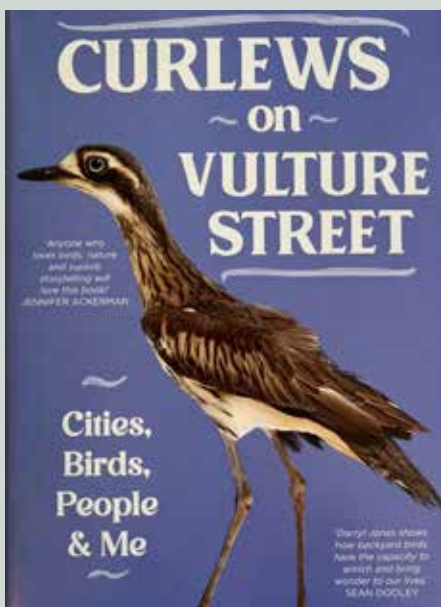
**2021, by Ceridwen Fraser, colour photographs**

**Paperback, 115 pages, \$28.00**

This book is a fabulous combination of the fun of beachcombing plus providing us with the facts, information and stories about the amazing treasures that can be found along beaches.

Packed with lots of excellent colour photographs, author Ceridwen Fraser looks at a wide range of topics including tides, waves, seabirds, kelp, corals, plastic pollution, sea urchins and marine mammals, and answers some of those little mysteries like 'what are those jelly-like blobs that wash up on the beach?' and 'what are those hard brown spiral cases shaped a bit like an ice cream cone'.

There are some yum-looking recipes for 'Kelp Ragout', and 'Wakame Seaweed Salad' and an excellent chapter about seaweeds with diagrams explaining the intricacies of their blades, holdfasts and so on.



## **Curlews on Vulture Street – cities, birds, people and me**

**2022, by Darryl Jones**

**Paperback, 323 pages, \$33.00**

A fascinating and enjoyable read! Author Darryl Jones shares hilarious, heartbreaking, and interesting stories about the many birds that live among us in the cities. Most of all, the stories are seriously relatable: Brush Turkeys providing a free garden rearrangement service, the Magpie and their amazing memory, very ('sounds like the engines' blown up') loud screeching roosting Lorikeets, a tagging project in Brisbane using water pistols full of coloured dyes to identify White Ibis, plenty of discussion on the controversial topic of bird-feeding in Australia and much more!

# What's on at the Gardens

## December 2022 to March 2023

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

### Free Guided Walks

#### 11.00 am for one hour, daily

Enhance your visit to the Gardens by taking a free guided walk with a volunteer guide. Tours are available for up to ten people.

#### 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. Tours can be booked for up to 12 people. 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

#### First Friday of every month

10.00 – 11.00 am

\$5 per child or \$10 per family

Crosbie Morrison Lawn

Book online

Stories, songs, rhymes and creative activities are brought to life in the Gardens' beautiful natural surroundings. Perfect for pre-schoolers.

### Sunset Cinema

Every Wednesday, Thursday,  
Friday and Saturday night  
24 November 2022 – 25 February  
2023

Eucalypt Lawn

Book online

Enjoy latest releases, children's and classic films in the beautiful garden surrounds. Bring a picnic or purchase your dinner at the event.

### Removing woody weeds from Black Mountain and/or ANBG

Saturday 7 January, 4 February,  
4 March and 1 April  
8.30 – 11.30 am

Check the Friends' website for the meeting place for each weeding work party.

Please email your name and phone number to [friendsofblackmountain@gmail.com](mailto:friendsofblackmountain@gmail.com) or phone Linda 0437 298 711 or Libby 02 6296 1936 so there is enough delicious morning tea.

### Snakes Alive!

9–15 January 2023

10.00 am – 4.00 pm

\$7 adults, \$6 concession, \$5 child

Crosbie Morrison Building

Book online

The ACT Herpetological Association invites kids and carers to get up close and enjoy live displays of snakes, lizards, frogs, turtles, crocodiles and more.

### Summer butterfly walks

Sunday 22 January 2023

10.30 am – 12.00 noon OR

1.30 – 3.00 pm

In summer we see not only how colourful butterflies are when they fly but also how well 'camouflaged' they are when resting on logs or rocks. Join us to hunt for Imperial Jezebels, Australian Painted Ladies, Common Brown butterflies and others. We all love sunlight, and we owe many glorious and sweet-scented flowers to the butterflies and moths that pollinate them. Join our local expert, Dr Suzi Bond, to see and hear about butterflies and the plants they like in the ANBG.



Helen Dawes

Australian Painted Lady butterfly feeding on *Xerochrysum* sp. flower.

Copies of the *Field Guide to the Butterflies of the Australian Capital Territory*, by Suzi Bond with Steve Holliday and John Stein, are for sale in the Botanical Bookshop.

This event is for members of Friends only.

**Meet:** Visitor Centre, ANBG

**Bring:** Binoculars to see the butterflies more clearly if you wish. Water and snacks if you wish.

**Wear:** Sturdy walking gear, including hat and stout shoes.

**Bookings essential:** Places are limited, so please book via the link on the Friends website.

For enquiries, email [memberswalks@friendsanbg.org.au](mailto:memberswalks@friendsanbg.org.au) or contact Linda on 0437 298 711.

### Australian Native Plant Society Autumn plant sale

18 March 2023

Starts 8.30 am

Browse Canberra's best range of Australian native plants, including many local species.



**Exhibitions**  
**Visitor Centre Gallery**  
**Open Daily 9.30 am – 4.30 pm**  
**Free**

**24 November – 11 December 2022**

**Illuminate: Friends Photographic Group Exhibition**

An exhibition of photographs of flora and fauna taken within the Gardens by the Friends of the ANBG Photographic Group.

**14 December 2022 – 22 January 2023**

**Trees: Remnants and Reserves**

An exhibition of drawings by botanical artist Morgyn Phillips, depicting the stories of scarred tree trunks and limbs in their habitats and communities.

**25 January – 26 February 2023**

**Moments in the Australian Bush**

A ceramic and painting exhibition by artists Amy Beggs-French and Penny Deacon, capturing unique and beautiful moments at Namadgi National Park, the Snowy Mountains, the Brindabellas, Tidbinbilla and the ANBG.

**1 March – 2 April 2023**

**See What I See**

See Australia through the eyes of NatureArt Lab's original artworks of nature journaling, watercolour, drawing, scratchboard, polymer clay, scientific illustrations, botanical and wildlife art, wildlife photography, macrophotography and more. Artworks available for purchase.

**Crosbie Morrison Room**

**9.30 am – 4.30 pm**

**Entry fee applies**

**24–26 February 2023**

**Bonsai Exhibition 2023**

Have you ever wondered whether Australian plants make good bonsai? Well, bonsai artists think they do! This annual exhibition showcases the best of Australian bonsai.

**Flowers, Fruit and Foliage**

**Self-guided walks**  
**Free**

The Flowers, Fruit and Foliage brochure is your self-guided tour to what's flowering in the Gardens. Armed with the guide, you can take a tour anytime the Gardens are open.



Knowledgeable and dedicated Friends Rosalind and Benjamin Walcott write and illustrate a new guide every two weeks, so it's always up-to-date.

The current version of Flowers, Fruit and Foliage is always available from the Friends' website [friendsanbg.org.au](http://friendsanbg.org.au)

You can print your own hard copy or pick one up from the Visitor Centre. Alternatively, you can view the guide on a mobile device while walking in the Gardens.



**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)



# Thursday Talks

## February to April 2023

Lunchtime talks are held at 12.30 pm every Thursday from February to November in the Gardens' Theatrette. Talks last for one hour. Admission is by gold coin donation. The Friends use the donations received to support Gardens' programs and development and thank all those who have donated.

The talks are in line with Covid-19 guidelines which can change rapidly. Bookings are a good idea as talks sometimes book out very quickly. The booking link for each talk is on the Friends' website at [friendsanbg.org.au/calendar](https://friendsanbg.org.au/calendar). Bookings can be made from the Friday before the talk until 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 to Friends from the ANBG library. Please direct queries to the Thursday Talks Team by emailing [talks@friendsanbg.org.au](mailto:talks@friendsanbg.org.au)

## February

### Thursday 2 February

**Dr Heidi Zimmer**

#### **Orchids of Norfolk Island and their place within the Australasian Orchidaceae**

Heidi, of the Australian National Herbarium, will talk about her recent fieldwork on Norfolk Island (alongside Mark Clements), from retracing the steps of Bauer to find the critically endangered *Adelopetalum apetalum* to literally falling over orchids on well-worn walking tracks!

### Thursday 9 February

**Honorary Professor Penny Olsen**  
**Feather and brush**

Penny, from the Australian National University (ANU), will briefly trace the 300-year history of Australian bird art, from the crude engravings illustrating accounts of the earliest European voyages of discovery to the diversity of artwork available today.

Penny is happy to sign copies of her new book after the talk.

### Thursday 16 February

**Professor Justin Borevitz**

#### **Precision landscape regeneration**

Justin, from Research School of Biology, ANU will introduce precision landscape regeneration, including methods in *Eucalyptus* foundation species to re-build agro-ecosystems, methods for boosting soil carbon with microbes and management, and the outsized role Australia can have for world's planetary health and resilience.

### Thursday 23 February

**Emeritus Professor Patrick De Deckker**

#### **The extraordinary scientific achievements of the French Baudin expedition (1800–04) in Australian waters**

In this talk, Patrick will outline the numerous discoveries and achievements made by the French expedition. He will discuss some of its cartographic accomplishments and compare some with those made by Matthew Flinders at about the same time.

## March

### Thursday 2 March

**Dr James Clugston**

#### **Towards a better understanding into the Bush Peas Mirbelieae (Fabaceae) in Australia**

Recent evidence shows that the tribe Mirbelieae is greatly underdescribed and James, from the Royal Botanic Gardens Sydney, will talk about recent advances in DNA sequencing of Mirbelieae that has helped a consensus on the taxonomic relationship of species and genera within the tribe.

### Thursday 9 March

**Dr Melissa Snape**

#### **Connecting nature, connecting people: joining the dots for wildlife connectivity across Canberra**

Mel, from ACT Government's Conservation Research, will focus on urban habitat connectivity, and government initiative to incorporate biodiversity considerations more fully into our planning system.



*Oberonia titania* and neighbouring cryptogams on Norfolk Island.



The ships *Géographe* and *Naturaliste* from Baudin's expedition.



A collage of *Pultenaeas*.



### Thursday 16 March

See details on the Friends website.

### Thursday 23 March

**Dr Bryan Lessard**

#### **Eyes on flies: Why we should love flies and the wonderful things they do**

Without flies there would be no chocolate! What native plant species rely on flies for pollination? Join Bryan, from Australian Biological Resources Study, as he talks about these misunderstood creatures and the essential services they provide free of charge.

Bryan is happy to sign copies of his new children's book after the talk.

### Thursday 30 March

**Dr Peter Thrall**

#### **Why digitise biological collection?**

The presentation by Peter, from the National Research Collections Australia, will focus on digitisation projects and added value that these efforts can bring to biological specimen collections for use in research from about 15 million specimens.

## April

### Thursday 6 April

#### **Professor David Lindenmayer AO Natural asset arming – key ways to integrate woodland conservation and agricultural production**

David, from ANU Fenner School of Environment and Society, will provide an overview of the key findings from 24 years of the Sustainable Farms project at the ANU that focused on temperate woodland conservation on farmland.



Bryan Lessard

Blow fly pollinating.

### Thursday 13 April

**Dr John Turnbull**

#### **Lindsay Pryor: A man of the trees**

John, formerly from CSIRO, will cover the career of Lindsay Pryor (1915–98). He was a forester, botanist, landscape architect and educator whose legacy involved the biology and cultivation of native and exotic trees in Canberra, elsewhere in Australia and internationally.



APIL

The Lindsay Pryor legacy includes arboreta in Canberra and beyond.

### Thursday 20 April

#### **Genevieve Wright & Pete Bredell The story of three threatened eucalypts**

Genevieve and Pete will talk about three threatened species of *Eucalyptus* and research into their conservation; the Mongarlowe Mallee (*Eucalyptus recurva*), the Mount Imlay Mallee (*Eucalyptus imlayensis*) and the Suggan Buggan Mallee (*Eucalyptus saxatilis*).

## Friends Benefits

### **As a Friend you are entitled to:**

- Three issues of *Fronde* 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.





*Friends* of the  
Australian National  
Botanic Gardens

*Helping the Gardens Grow*