

# *Fronds*

*Friends of the Australian National Botanic Gardens*

*Number 103 April 2023*







# Friends of the Australian National Botanic Gardens

President Neville Page  
 Vice President Linda Beveridge  
 Secretary Louise Maher  
 Treasurer Anne Holmes  
 General Committee Alan Henderson  
 Christianna Cobbold  
 Kerry Moir  
 Masumi Robertson  
 Public Officer Christianna Cobbold  
 Post: Friends of ANBG, GPO Box 1777  
 Canberra ACT 2601 Australia  
 Telephone: 02 6250 9548 (messages)  
 Website [friendsanbg.org.au](http://friendsanbg.org.au)

## Friends activities and contacts

Fronds Committee Barbara Podger  
 Cathy Robertson  
 Denis Warne  
 Sharon Abrahams

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

Membership Lesley Harland  
 Pam Cooke  
 Evelyn Jacobsen

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

Growing Friends Maurice Hermann  
 Botanic Art Group Helen Hinton  
 Photographic Group Steven Playford  
 Plant Science Group John Busby  
 Talks Convenor Linda Beveridge  
 Nature Journaling Lesley Page  
 Guides Kerry Moir  
 Social Events Christianna Cobbold  
 For all groups [info@friendsanbg.org.au](mailto:info@friendsanbg.org.au)  
 Booked Walks [bookedwalks@friendsanbg.org.au](mailto:bookedwalks@friendsanbg.org.au)

## 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



Brian Moir

Council of the Friends of the ANBG.

Back row, L to R: Alan Henderson, Christianna Cobbold, Linda Beveridge, Masumi Robertson, Kerry Moir. Front row, L to R: Louise Maher, Neville Page, Anne Holmes.

## In this issue

Tropical conservatory takes shape	3
Recent ANBG work to conserve <i>Dampiera fusca</i>	5
The only good snake is a live one	6
Friendly Chatter	
Botanic Art Group	9
Growing Friends	9
Nature Journaling	10
Volunteer Guides	10
Photographic Group	11
Gardens Shorts	12
Friends Briefs	14
Botanical Bookshop book reviews	15
What's on at the Gardens	16
Thursday Talks: April to July 2023	18



Front cover: *Dampiera fusca*, a small but spectacular wildflower, on show near Booromba Rocks in mid-January 2023. Photograph by John Fitz Gerald, Seedy Volunteer.

Erratum: The cover of the December edition of *Fronds* featured an image by Peter Abbott which we did not acknowledge. We're very sorry Peter.

Friends of the ANBG is a member of the AAFBG



# Tropical conservatory takes shape

In 2016, the Australian National Botanic Gardens awarded the contract for design of the Ian Potter National Conservatory, to be a “showcase, establishing the Gardens as the leading conservator of Australia’s tropical flora from areas such as Christmas Island, Kakadu and northern Queensland.”

The Conservatory will provide the Gardens with a much-expanded capacity to showcase and conserve Australia’s tropical plants.

Now, we can see the building taking shape in the Gardens.

## The challenge

It was always going to be a tough challenge. The warm, humid environment required by the tropical plants to be housed in the Conservatory is a long way from Canberra’s cold, dry climate.

An artificial environment needs to be created that is also extremely stable and without high operating costs or environmental impact. This very special building will be far from the conventional glass house.

A specialist environmental sustainability consultant with experience on the Singapore Gardens was commissioned to model the internal environments generated by alternative designs. A plant physiologist from the Australian National University (ANU), specialising in tropical plants, advised on plant daylight needs.

Gardens horticulturalists worked closely with the team to establish the right overall climate conditions. Architects from CHROFI, the Conservatory designers, devised solutions. Senior Gardens staff maintained the vision.

Between them they devised and assessed designs considering Canberra’s climate, botanical and operational needs, and detailed building characteristics such as window size, precise orientation, and insulation characteristics of building materials. Design options were investigated, trade-offs were made, design opportunities were pursued.

## Construction begins

Eventually the go-ahead was given. Peter Byron, General Manager ANBG, and Heather Sweet, Senior Nursery Horticulturalist, reported on the design in an article for *Fronde* in August 2020.

Soon, plants were being moved from the site as a significant area was cleared. Some of our favourite walking paths through the Gardens were blocked off. Then, construction traffic appeared in the middle of the Gardens.



CHROFI



CHROFI



CHROFI

Top: Artist's impression of public entry to the Conservatory below the glass brick wall on the south-eastern side of the podium and glass cube containing the rainforest chamber.

Middle: Construction site from above.

Bottom: Especially quarried large rocks have been brought in for two purposes. Some will form part of the water feature that will start as a trickle in the Rainforest Chamber and then flow down to a pond where other plants are showcased. Other rocks will be placed to provide ad hoc seating among the plants.

For a while it was difficult to see precisely what was happening, but then a viewing platform was installed and we were able to watch as construction commenced. Now there is really something to see.



# Tropical conservatory takes shape (cont.)

## The design solution

What is the design solution? The building is square, oriented around 45 degrees off the north–south axis resulting in north-east, north-west, south-east and south-west facing walls.

The two south facing walls are composed of two layers of glass blocks with a layer of insulation behind. The glass blocks on the outside are larger than domestic equivalents and have a rippled outer surface for visual effect in light. These southern walls are primarily about insulation and visual impact. A mock-up section of the wall is currently on display in the Banksia Garden.

The northern walls are all about letting in sunlight. They are constructed with a conventional double-glazing curtain wall, with glass that has special light and insulation characteristics.

The vertical profile of the building comprises a concrete podium with a tall glass cube above, which will house the rainforest.

## Taking shape

As I write this in mid-March, what can be seen on site is the concrete infrastructure of the podium, which includes the entry, the lower galleries and the base of the rainforest chamber. This part of the construction comprises bespoke concrete work done by local Canberra contractors.

The concrete is not just structural: it also has a role in stabilising the internal climate of the building, providing a heat sink, giving thermal inertia.

There are further measures to manage the internal climate. Airflow is directed upward inside the windows, which also helps to manage condensation and avoid consequential damage to infrastructure.

The internal water feature and a fully integrated fogging system not only enhance the visitor experience but can also boost humidity for the plants. The building will be airtight and will include airlocks at the building entrances.

As the concrete base has been proceeding, prefabrication of upper structure has been underway elsewhere. Metal frames to hold the glass blocks have been prefabricated and will soon be installed. The glass blocks – all 3,500 of them – will be mounted in situ.

At about the time this edition of *FronDS* reaches letter boxes, we should start to see significant vertical activity, starting with the central scaffolding. Then we will start to get an impression of the vertical scale of the Conservatory. There will still be a way to go, but visible achievement will accelerate.



CHROFI



CHROFI

Top: Artist's impression of north west facing wall, with glazing to the upper levels.

Bottom: Artist's impression of inside the Conservatory. Note: plants are for artistic purposes only and may not be the plants intended by the Gardens.

For a while longer we can enjoy the unfolding drama of construction activity.

Meanwhile, elsewhere in the Gardens, plants are being readied to move in, conservation and research programs are being planned, and all the communication activities that go with informing the public of our tropical heritage are being worked on.

When all that comes together, we will truly have a very special building, the world-class facility to which we aspired.

## Acknowledgement

I would like to thank Peter Byron of the Gardens and Felix Rasch of CHROFI for their informative and enthusiastic background to the engineering of the Conservatory. They are clearly passionate about this building.

**Denis Warne**



# Recent ANBG work to conserve *Dampiera fusca*

**Tom North, Alex McLachlan and  
John Fitz Gerald  
National Seed Bank**

*Dampiera fusca* is an uncommon to rare native plant that has a deserved reputation as a fire responder – it benefits in the short term from severe fire promoting mass germination of seeds.

The species is known within the ACT only from the Booroomba Rocks area of Namadgi National Park. Significant groups of plants (numbering in the thousands) were recorded by conservation ecologists from ACT Government in the years following the severe fire in Namadgi in 2003. The National Seed Bank (NSB) attempted to collect from these in 2014 but was unable to locate them.

This summer, following the second severe fire in the area in 2020, the NSB revisited and found many plants in flower late in 2022. The team was relieved to locate such good flowering in a location that has been heavily burned twice, with the time between fires of just 17 years.

Staff and Seedy Volunteers returned to Booroomba and collected seed-bearing material in February 2023. A few hundred seeds have been cleaned from this material and will be further characterised, then potentially used for germination testing.

This recent collection is important for conservation in two ways. Firstly, the *Dampiera fusca* population in the Tinderry National Park in nearby NSW, severely burned in 2009–10, is already in steep decline due to competition from other larger plants. Secondly, material collected from Tinderry in 2014 showed very low seed fill when examined by x-ray imaging at the NSB. Positively, some plants grown in ANBG Nursery from cuttings taken at Tinderry in 2013 have been moved out to ANBG's Living Collection (for locations, search Find a Plant) but longevity is a challenge. The Nursery has also propagated newer cuttings from Tinderry.



John Fitz Gerald



Diego Munoz Concha

Top: *Dampiera fusca* are small plants with fresh, bright green, soft stems.  
Above: Seed on a plant.



Diego Munoz Concha



Tom North

Above: Seedy Volunteer, John Fitz Gerald, collecting some plant material of *Dampiera fusca* at Booroomba Rocks in February 2023.

Left: The rocky hilltop setting where many tiny *Dampiera* plants were underfoot.



# The only good snake is a live one

The Canberra region's wildlife is fundamental to the notion of Canberra as the bush capital. Despite being protected under legislation, snakes and reptiles are often seen as pests rather than wildlife, deserving of conservation. Just as urban development has reduced the natural habitat of many of our wildlife species, snakes have also been significantly affected by the built environment. Snakes are vulnerable to environmental pressure. Canberra residents frequently engage snake catchers to remove snakes, because they are reluctant to tolerate them living in or passing through their properties.

## Positive or negative?

Most people fear snakes. Perhaps this is not surprising because in western culture, snakes have acquired a negative association, beginning with their first offence, tempting Eve in the Garden of Eden. And there are a very small number of people who suffer with Ophidiophobia – 'ophis', meaning serpent. On the other hand, Aboriginal culture reveres the power of the Rainbow Serpent, which is an iconic presence in the Dreaming stories of Aboriginal rock art, oral history and ceremony: the Rainbow Serpent represents the life-giving values of water and rainbows.

## Slow change towards the positive

There are several research and education programs in our region that are developing productive ways for snakes and people to coexist. Organisations that are involved in this work include the Canberra Snake Tracking Project, the Gardens and the ACT Herpetological Association (ACTHA). In addition, the Canberra Reptile Zoo and the National Zoo and Aquarium employ trained snake handlers and provide popular visitor experiences.



Gavin Smith with an eastern brown snake, *Pseudonaja textilis*, contributing biological and ecological data to the ANU's Canberra Snake Tracking Project [facebook.com/CanberraSnakeProject](https://facebook.com/CanberraSnakeProject)

Arguably the most innovative education program in the Canberra region is run by ACTHA, a community organisation ([actha.org.au](http://actha.org.au)). Seventy ACTHA volunteers are the hosts of Snakes Alive!, an annual summer holiday event at the Gardens, displaying a selection of Australian reptiles and amphibians, many of which are threatened, endangered and very rarely seen in the wild or captivity. ACTHA's program supports citizen scientists, amateur collectors, academic researchers, young people seeking careers in reptile ecology and entrepreneurs in the business of snake removal.

The Canberra Snake Tracking Project is a study of the impact of urban development on the eastern brown snake. The study is collecting data on how these creatures move through

and make use of Canberra's suburban environment.

Associate Professor Gavin Smith is a snake ecologist and environmental sociologist at the Australian National University (ANU). ACTHA has already made one grant to this project and also funds other similar projects.

Gavin says that snakes have been forced to evolve and adapt to share degraded landscapes with humans and their domestic pets.

"We humans are continually encroaching on the naturally occurring habitats of wildlife. As we urbanise and continuously encroach into their green spaces and naturally occurring habitats, so we put more environmental pressure on organisms like snakes and force them to live on the urban edges" he says.



## Eastern browns in Canberra gardens

The eastern brown is the snake most commonly seen in our suburban gardens.

Eastern browns are viewed at best as pests and at worst as the deadly enemies of people and domestic pets. Part of the reason for this reputation has been due to the strength of its venom, the second strongest in the snake world. The venom of the Australian Inland Taipan is stronger.

While the consequences of an eastern brown venom can be fatal, there are few fatalities. On average, two deaths per year in Australia are caused by snake envenoming, and eastern browns are responsible for just over half of these.

It is perhaps understandable that most people are reluctant to tolerate snakes temporarily residing in or transiting through their properties. But with more education and understanding of their behaviour, our interaction with an eastern brown could become more sympathetic to them.

## The Maserati of the snake world

Gavin's first experience with an eastern brown was at the Jerrabomberra Wetlands when he first moved to Canberra. "The eastern brown is what we call the 'Maserati' of Australian elapid snakes. I recall being awed by the snake's appearance, behaviour and locomotion," said Gavin.

"The first time I actually handled one in spring 2016 was one of the more memorable (and, evidently, impactful) experiences I've had. I pretty much knew from that encounter that I would be working with and for, these animals for as long as I am able, changing how they are represented and improving the conditions under which they live."



Lucinda Royston, ACTHA

Hunter Dunn, thrilled to be showing his albino Darwin carpet python to Snakes Alive! visitors.

Gavin's study of the ecology of urban adapted snakes is concerned with how they respond to translocation by snake catchers; and to discover empirical insights into how these snakes respond to living on the urban edges. He feels that the social relationship between Canberrans and the eastern brown is slowly improving, but there is still too much fear, intolerance and violence toward snakes, despite their legal protection.

## Snakes of the Canberra region

There are eight snakes in the Canberra region. They are the:

- eastern brown snake
- tiger snake
- red-bellied black snake
- black-headed snake (rarely sighted as it is nocturnal)
- blackish blind snake
- white-lipped snake (common at higher altitude)
- highland copperhead and
- common bandy-bandy.

## Snakes at ANBG

Perhaps the most inspiring daily interaction between the Canberra community and the eastern brown occurs within the Gardens, a semi-natural habitat for eastern browns.

The Gardens are just two kilometres from Canberra's city centre and nestle into the east facing lower slopes of the Black Mountain Nature Reserve. The reserve is part of an extensive area of wooded vegetation creating connectivity for the Canberra region's wildlife, between the Molonglo and the Murrumbidgee Rivers.

Within the campus of the Gardens, under the Management Plan, snakes are respected as an important part of the ecosystem and the rangers have responsibility for managing and monitoring the snake population.

ANBG ranger, Ben Harvey, says that visitors sometimes see eastern browns sliding past the Gippsland water dragons. These snakes are an apex predator, playing an important role in managing populations of their prey species such as frogs, other reptiles and even insects.



# The only good snake is a live one (cont.)

The blackish blind snakes, which resemble a worm, also have a home here, but they are rarely seen.

While the eastern browns are highly venomous, snakes at ANBG are tolerant of visitors and would much rather move away than face a confrontation. ANBG annual identification and tracking projects suggest there are between six and nine eastern browns at any one time.

Reports from visitors to the rangers about snake sighting incidents occur in the period between October and March, when snakes sun themselves or move around in search of food and water. Snakes are only moved in circumstances where they pose an unacceptable risk.

## Snakes Alive!

Snakes Alive! is a major event with considerable administration and coordination requirements. The program is a remarkable four-way collaboration between ACTHA, the Gardens, the Canberra Reptile Zoo and local snake catchers.



ANBG rangers initiate the ANBG's BE ALERT warning signs. They focus on snake awareness and behaviour, observing snakes until they have safely moved on, away from the public, and discussing these misunderstood creatures with visitors.



Mark Robertson, ACTHA member, assists a delighted visitor with handling a blue tongue lizard at Snakes Alive!.

Lucinda Royston, ACTHA

The snake catchers who handled the venomous snakes were Associate Professor Gavin Smith, ANU, member of ACTHA and a private snake catcher ([admin@actsnakeremovals.com](mailto:admin@actsnakeremovals.com)), Alex Borg, forensic scientist and also private snake catcher ([SnakeCatcher@iinet.com.au](mailto:SnakeCatcher@iinet.com.au)) and Liam Thornton, ACTHA vice president and an employee of Canberra Reptile Zoo ([info@canberrareptilezoo.com.au](mailto:info@canberrareptilezoo.com.au)).

On the periphery, the ACT Government's agency responsible for protection, conserving and enhancing the biodiversity of the ACT kept a watchful eye on arrangements.

Margaret Ning OAM is the ACTHA Treasurer. She says the dictum for ACTHA is 'the best snake is a live one'.

Margaret says that many of the ACTHA volunteers who supervised the children and adults' participation at Snakes Alive! own and display their animals in their own display cases.

Some interesting learnings from the program are: that snakes are picky eaters; some live for thirty years; they undergo periods of brumation, when they slow down and stop

eating completely; and venomous, not poisonous, is the correct term to describe the impact of an eastern brown's bite.

Gavin says that the WOW moment for him at this event, was seeing the excitement on the faces of the next generation when they watched the venomous snake show and to see their openness to learning.

The Gardens' continuing support of a productive connection between reptiles and amphibians and people is of great benefit to the Canberra community. By conserving habitat, promoting education, and contributing to policy and research, the Gardens' practical approach is cause for optimism for the future of these important members of our wildlife family.

**Cathy Robertson**

Note: we have used non-capitalised style for common names of reptiles in this article at the request of ACTHA.



# Friendly Chatter

## Botanic Art Group

It has been a busy start to the New Year even though we had no meetings in January. Entries for the Group's sixteenth annual exhibition were due in early February. First, they are checked by the Gardens' botanist and her team for botanical accuracy. After that, they are framed for exhibition, which can take several weeks.

This year's exhibition theme *High Country Natives* has inspired a variety of approaches to composition including landscapes of habitat of native flora in unique alpine regions as well as traditional compositions of native plants from alpine and other areas. For the purposes of this exhibition, high country natives are defined as Australian natives that grow in alpine, sub-alpine, montane and tableland geographical regions.

**Members of the Friends are invited to a special preview prior to the opening of the exhibition. The preview, when all paintings are for sale, commences at 2.00 pm on Friday 7 April. The exhibition will be open to the public from 8 April until 7 May. We hope you will pay us a visit to see the exhibition at the Visitor Gallery.**

Plans are also underway to offer a number of classes in botanical art for members at a minimal cost. All Friends are welcome to join the Botanical Art Group: no experience is necessary. In fact, the first classes to be offered will be for beginners. Later in the year other classes will introduce topics such as using coloured pencils in botanical art and additional watercolour techniques.

Meetings are held in the Banksia Centre on the second Thursday, second Saturday and fourth Wednesday each month. If you are interested in joining the group or one of the classes please contact us at

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

**Kate Ramsey**



Cornelia Buchen-Osmond



Cheryl Hodges



K. O'Keeffe



Morgyn Phillips

## Growing Friends

Another successful plant sale attracted an eager local Canberra public on 4 March. Members of the public could choose from a very wide and healthy range of native plants from the Growing Friends' current stock. The sale raised over \$7,000 which goes towards the Friends' support of the Gardens.

The return of this regular event has now settled into a normal and predictable rhythm. A spring plant sale for 2023 will be announced when arrangements are finalised. Details will be given on the Friends website.

Growing Friends is undertaking a new project to develop expertise within the group to propagate grafted native plants. The major advantage of grafting is that it allows plants that may be sensitive to a particular soil type or level of soil moisture to be grafted onto more robust root stock. Grafted plants are also often faster growing and more disease resistant.

A good example of where grafting is widely used is in growing Western Australian *Banksia* for planting on the east coast. They typically need sandy or gravelly soil with perfect drainage. However, when grown on root stock which can take the heavier soil types often found in the east of the country, including Canberra, then they can be grown with a high degree of success. Watch this space.

If you want to learn more about Australian natives and how to grow them, Growing Friends provides a friendly and supportive environment for learning. To join us, contact

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

**Donna Growcock**

From top to bottom: Cornelia Buchen-Osmond, *Olearia phlogopappa*; Cheryl Hodges, *Utricularia dichotoma*; K. O'Keeffe, *Dodonea viscosa*; Morgyn Phillips, *Podocarpus lawrencei*.



# Friendly Chatter (cont.)

## Nature Journaling

It is a pleasure to share some fruits of of our journaling contemplations: two Nature Journaling drawings by Lucinda Lang (*Epacris longiflora*; *Alyogyne huegelii*) and also a poem by Lynlea Rodger, all inspired by the Gardens.

We meet on the first Monday of the month at the Visitor Centre at 10.00 am, and then disperse around the Gardens. About 11.30 am we meet again at a designated spot to discuss our works and have lunch.

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

**Lesley Page**

## Endangered Species By Lynlea Rodger

Bent bow  
weary slack  
memorised strain and release.  
And agility privately held beneath  
bark toughened by adversity's  
silencing.  
Arrow's coupling  
prepared and plucked  
by life's  
as yet  
unknown, insecure and unsteady  
Grace.

Thoughts of Lynlea Rodger:  
"The tree I contemplated today  
and its resilience reminded me  
(post Covid) of a bow and arrow  
– empty bow and slack, with an  
indeterminate trajectory. When  
looking closer at the tree/s I found  
it is an Endangered Species, *Acacia  
covenyi* ..."

Above: 'Endangered Species' poem by Lynlea Rodger.

Right, above: *Alyogyne huegelii* by Lucinda Lang.  
Right, below: *Epacris longiflora* by Lucinda Lang.



Pam Darwin



Beth Tyerman

Top: Cactus garden at the Royal Botanic Gardens Victoria, Melbourne.

Above: Conference scene in Melbourne weather.



Lucinda Lang



Lucinda Lang

## Volunteer Guides

Australasian botanic guides conferences are usually held every two years, but we had to wait an extra year for the seventeenth conference, held in October 2022 at the Royal Botanic Gardens Victoria (RBGV), in Melbourne and Cranbourne. Eighteen guides from the ANBG attended, along with 130 others from large and small botanic gardens across Australia and New Zealand. The conference gave us the opportunity to meet peers from other locations, learn about Victorian gardens, and compare guiding approaches and techniques.

Held over five days, with multiple parallel sessions each day, and two days of excursions (to Cranbourne, as well as the Mornington Peninsula, the Dandenongs, and Melton and the north-west), this was a complex and impressive event, mostly run by volunteers for volunteers.

There was something of interest for everyone, including: displays of rare and endangered plant species from various parts of Victoria; the Southern Brown Bandicoots resident at Cranbourne; a new extensive cactus garden in the RBGV; a discussion and history of the RBGV site by the two talented Aboriginal Learning Facilitators who work there; and a workshop on guiding people with dementia, to name a few highlights. I particularly enjoyed the guided walk describing Guilfoyle's 'Picturesque' landscape design of the RBGV, whilst strolling the designer's curved paths, and looking across 'empty' grassed areas to mass plantings and pretty pavilions.

All who attended enjoyed the opportunity to engage with different guides and different approaches, as well as to experience new themes for walks. In 2023 we are actively applying some of these fresh insights into our own guiding.

**Lesley King**



## Photographic Group

The Photographic Group (PG) held its ninth photographic exhibition, *Illuminate*, from 24 November to 11 December 2022. It included 58 framed images from 21 exhibitors, cards, unframed prints, calendars, bags, earrings and bookmarks for sale. The exhibition raised over \$1,700 for the Friends from total sales of over \$7000. Special thanks go to the exhibition organising team – Jim Gould, Rhonda Daniell, Helen Dawes, Graham Gall and Edna Jones – for their help to plan and organise the exhibition. Thanks also to my fellow PG Committee members who oversaw the exhibition. Managing the sales of our exhibit items would not happen without the time and effort of David More. A special thanks to the 21 exhibitors for their participation and time rostering the desk.

For many years the Calendar for the Gardens has been a collaboration between the PG and the Botanical Bookshop. Due to time constraints the Bookshop was not planning to produce a calendar after 2023. The PG saw a great opportunity to continue this much loved calendar and have taken over all aspects of the production. We want to acknowledge the generous assistance from Dan Butt, the Botanical Bookshop manager, who shared many tips of the trade. The Botanical Bookshop will continue to sell the calendar on our behalf.

The PG has an active 2023 program which commenced with Peter Abbott, author of *Native Bees of the ACT and NSW South Coast*, presenting on native bees and then leading us on a walk to find native bees in the Gardens. In March, representatives of Birdlife Australia updated the group on the Birds on Farms project. The PG welcomes new members of all levels of experience and with all types of cameras. Contact [photo@friendsanbg.org.au](mailto:photo@friendsanbg.org.au)

**Steven Playford**



Steven Playford

Photographic exhibition award winners.

Friends of the ANBG Council's Choice was *Present and Future* by Steven Playford. The framed photo from the *Illuminate* exhibition was purchased by the Friends Council and donated to the Gardens.



Pam Rooney

Rangers' Choice was *Scribbly Gum Details* by Pam Rooney.



Ben Harvey

The People's Choice was *Tawny Frogmouths* by Ben Harvey, ANBG ranger.



**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)



# Gardens Shorts

## Executive Director's Report

I feel very privileged to take on the role as Executive Director of the ANBG for the next few months. Dr Judy West, who stepped down from this role in late 2022, worked hard over more than a decade to ensure the Gardens are the wonderful national attraction they are today, underpinned by world leading science programs. I will be in this position for the next few months as the Director of National Parks recruits the permanent Executive Director.

I have a background in botanical sciences and have had a love of the ANBG since the mid-nineties when I first came to Canberra to work as an Identifications Botanist at the Australian National Herbarium. Since then, I have had various roles within the Australian Government Environment portfolio, most recently managing the Australian Biological Resources Study, seed bank conservation programs and our close relationship with CSIRO through a joint venture.

My previous roles have helped show me how important our living and research collections will be in informing the environmental challenges facing Australia over the coming decades. I know that our collections are well respected, both nationally and internationally, and we continue to work closely with other Australian botanic gardens and seed banks to better future proof our flora from the impacts of climate change.

It has been a great start to 2023 at the Gardens, with record visitation over summer. December 2022 was the busiest ever recorded, followed by the busiest January since 2007. Education is also booming, with 15,000 students already booked to visit the Gardens throughout 2023, with more bookings likely to come.



Anthony Whalen is currently acting as Executive Director of the ANBG.

ANBG

Later this year we also hope to launch our online education project, helping students and teachers around Australia to engage with the Gardens regardless of their location.

The year 2023 will be an important one for the Gardens, with the Ian Potter Conservatory construction scheduled for completion later this year. The focus will then turn to a diverse variety of tropical plants, expertly installed by our nursery team. I encourage all Friends to keep an eye on this significant addition to not only the ANBG, but to the Canberra urban landscape. We are confident the new Conservatory will be seen from Civic and hopefully draw new and regular visitors back to the Gardens once open, prior to Christmas.



ANBG

We will also commence work on constructing the new National Seed Bank facility. We are currently finalising contracts with the builder and will advise the Friends on the start date.

I look forward to the coming months. I do know many of the Friends through our Thursday Talks series but am always happy to meet new people, particularly those who share a love of native plants. Feel free to say hello as we enjoy our wonderful Gardens together.

**Anthony Whalen**

## Record visitor numbers

The ANBG entered 2023 on a high after celebrating the largest number of visitors ever recorded for the month of December. More than 45,000 people attended the Gardens in December alone!

Excitingly, 2022 was also the Gardens' second busiest year on record, with 522,000 people entering the gates. This is only the fourth time the Gardens' annual visitor numbers have exceeded the half-a-million mark.

It was a very successful year for student visitation, with 15,661 students visiting. Most of the schools chose to visit in the second half of the year, with 11,629 students visiting between July and December 2022 which is 30 per cent higher than any previous period on record.

The Gardens are hopeful this trend – both for visitors and students – will continue throughout 2023, particularly with the new Ian Potter National Conservatory opening later this year.

December 2022 was the busiest December on record, with over 45,000 people visiting the Gardens!



## Snakes Alive! returns to the Gardens

After three years, the Gardens welcomed the return of Snakes Alive!. The exhibition allowed 3,000 enthusiastic visitors to lay their eyes (and hands) on an impressive live display of snakes, lizards, frogs, turtles and crocodiles!

Presented by the ACT Herpetological Association, Snakes Alive! delivered a unique educational experience, teaching people about a variety of Australian reptiles and amphibians, many of which are threatened, endangered and rarely seen in the wild or captivity.

Species local to the ACT and the Southern Tablelands region were displayed, including the highly endangered Northern Corroboree Frog and the threatened Grassland Earless Dragon and Striped Legless Lizard.

Funds raised through Snakes Alive! supports regional conservation programs, including the Northern and Southern Corroboree Frog breeding programs and programs aimed at furthering reptile and amphibian protection and recovery, education, training and research.

## New School Holiday Program trialled

January is typically a quiet month for education in the Gardens due to school holidays. However, in January 2023 we welcomed a record 394 students! This is 75 per cent higher than the 5-year average for that month (2015–19).

This year we trialled a new holiday program which included content from our three of most popular programs: Indigenous Plant Use, Habitat Hunter and Pond Dipping. Bookings were made by school holiday care providers, which is a new target audience for ANBG Education.



Throughout January over 300 students participated in a trial of a new school holiday program.

Groups were of mixed ages, with varied levels of both energy and understanding. As it was a school holiday program, curriculum content took the backseat and curiosity and observation lead the way. Everyone loved seeing big Pobblebonk tadpoles and counting Water Dragons.

Children loved the hands-on activities and the opportunity to explore the Gardens at their own pace. The school holiday program received very positive feedback from the holiday care providers who were excited about booking for future holiday periods.

Gardens horticulturalists Rosella, Bec and Blake spray Delicate Pomaderris plants with the trial fungicide.



## Using the Gardens as a horticultural research site

For many years the ANBG has worked with the NSW Government Department of Planning and Environment to conserve the critically endangered Delicate Pomaderris (*Pomaderris delicata*). Plants growing in the Gardens provide an insurance population, and allow us to conduct research without negatively impacting wild populations.

Recently, wild plants have been impacted by *Phytophthora* dieback, which is commonly caused by the root-rot fungus *Phytophthora cinnamomi*. Fungicide treatments are available but need to be tested to ensure they don't damage the plants themselves. This summer we used the ANBG as an experimental site to test the sensitivity of Delicate Pomaderris plants to a potential fungicide treatment. Early results show the fungicide had no observable impact on plants, which means we can now apply it to wild plants. This may help reduce the threat of *Phytophthora* dieback on wild populations.

You can see many rare and threatened *Pomaderris* species in the Pomaderris Garden.



# Friends Briefs



Barbara Podger

Volunteers were thanked for their significant contributions to the Gardens and the Friends at the 2022 Volunteer Recognition Ceremony.

## Recognition of our wonderful volunteers

At the annual Volunteer Recognition Ceremony held at the end of 2022, a number of volunteers for both the Gardens Volunteer Program and the Friends were awarded certificates and thanked for their significant contributions to the Gardens and the Friends.

The event was hosted by Anthony Whalan, acting Executive Director, ANBG, and guest speaker was Arian Holmes, Membership, Training and Capabilities Coordinator at Volunteering ACT. Fittingly, the ceremony was held on the new Friends Lawn.

Certificates were awarded to volunteers for 10, 15, and 20 years of service at the Gardens, and Doreen Wilson was awarded a certificate for 30 years of service as Volunteer Guide, Growing Friend, and Seedy Volunteer in the Seed Bank.

Friends President, Neville Page, congratulated all volunteers, and observed that what is important about volunteer activities, whether part of the Gardens Volunteer Program or the Friends Special Interest Groups, is that it provides us with an opportunity to manifest our passion for the Gardens in something useful and positive.

Ten members of Friends Groups were awarded certificates for their service, including a number of Group Convenors, who, as Neville commented, do not normally nominate themselves and so are sometimes overlooked for such awards.

To find out about volunteering opportunities at the Gardens, pick up a brochure from the Visitor Centre.

**Barbara Podger**

## Riding in style

Have you ever noticed Flora Explorer parked on the café bridge or outside the Visitor Centre and thought “I’d like to take a ride on that bus one day”. If so, you are not alone. Many of the visitors who join Flora tours tell us they have had just that thought.

Flora is particularly popular with visitors from overseas looking for an overview of the ANBG; with family groups of grandparents, parents and children wanting to enjoy an outing together; as well as with visitors giving relatives or friends a gift.

It is easy to understand the reasoning behind this thinking. A ride on Flora allows visitors to travel with an experienced and knowledgeable Volunteer Guide around the Gardens in the comfort of the electric bus, exploring much of the Gardens’ site, including some of the higher and less frequently visited parts.

Flora travellers are introduced to some of the history of the Gardens as they undertake their postcard trip around Australia, viewing several of the geographical, ecological and ethnobotanical plant communities, such as the Eastern and Western Mallee regions, the Rainforest verge and the Rainforest, the Red Centre Garden, the Eucalypt Lawn, the Sydney Region Gully and the Rock Garden.

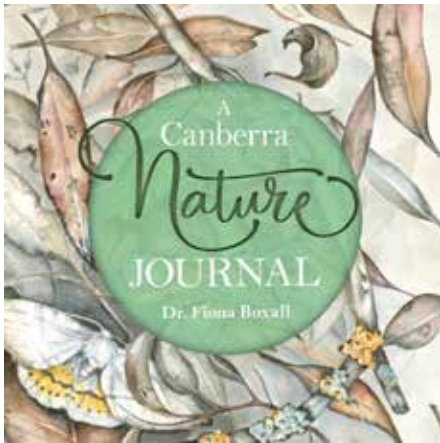
Next time you are in the Gardens you might consider making this the time you enjoy a ride on Flora. Enquire about ticket sales at the Visitor Centre.

**Joanne English**





# Botanical Bookshop book reviews

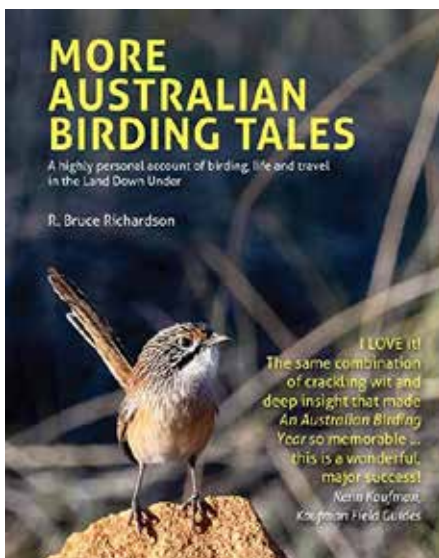


## **A Canberra Nature Journal. 2022**

**Dr Fiona Boxall, soft cover, 136 pages, colour sketches, \$24.95**

This beautifully illustrated book of nature sketches combines science, writing, drawing and painting, and most of all presents a collection of works that express a deep love for nature. It is a personal journey of connection to a place, being in the moment, and noticing the small and intricate beauty all around us.

Fiona encourages us to get out and have a go at this increasingly popular activity. She believes it is an opportunity to articulate emotional and imaginative responses to a place, and a way to motivate others to take an interest in the environment. Interested to have a go? What a wonderful thing to be able to look through years later, your very own illustrated 'diary' of time spent immersed in special places studying the behaviour and interactions of the animals and plants living there.



## **More Australian Birding Tales – A highly personal account of birding, life and travel in the Land Down Under 2022, R. Bruce Richardson, softcover, 365 pages, colour photographs, \$40.00**

What an enjoyable book! A fabulous opportunity to join the travel adventures of Bruce Richardson as he searches out birds across Australia. No need to be a 'birdo' to enjoy this unique and thoughtful journey. The beautiful colour photographs of birds, food, people, 4WD vehicles packed with camping gear, and stunning landscapes bring his many adventures to life. Well written, funny, insightful and informative, this is a hard one to put down!



## **Summer Butterfly Walks**

The ANBG is one of the best places in the ACT to see butterflies because of the diversity of plants and habitats including the edges of the Black Mountain bush.

Dainty Swallowtail (below), which breed only on citrus and have a particular habit of flying then gliding, were seen near some *Citrus australis* on the Summer Butterfly Walks in January.

Cilla Chapman



Stencilled Hairstreak breed only on *Acacias*. Walking groups saw some pupal shells (remains of chrysalis cases; below) on *Acacia aneura* var *major*.

Stencilled Hairstreak have an obligate relationship with meat ants: the ants protect the caterpillars and the caterpillars provide honeydew for the ants.

Our thanks to Suzi Bond for leading these walks.

Suzi Bond





# What's on at the Gardens

## April to August 2023

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 for one hour, daily\***

Enhance your visit and discover the spectacular colours of leaves, bark, flowers and seeds in the Gardens with a volunteer guide. Tours are available for up to ten people.

#### Flora Explorer bus tours

**Saturdays, Sundays and public holidays**

**11.30 am and 1.30 pm**

Take a 45 minute trip on Flora Explorer with an experienced volunteer guide. Tickets \$8 for adults, \$5 for children and pensioners. Ask for details at the Visitor Centre.

#### 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)

#### Canberra Tree Week: Wonderful Australian Trees

**1 – 7 May, 11.00 am and 2.00 pm Free\***

Celebrate Canberra Tree Week by joining a free guided walk. See a variety of wonderful Australian native trees including eucalypts, casuarinas, bunya pines and many more. Learn about the evolution of Australian trees and how they have been adopted across the world.

#### Canberra Tree Week:

##### Forest Therapy Walks

**Saturday 6 May 2.00 – 4.30 pm**

**Sunday 7 May 9.00 – 11.30 am**

**\$35 adult, \$25 student and**

**concessions**

**Book online**

Immerse yourself in nature on this gentle guided walk designed to help you disconnect from your busy life and help calm your mind. Your Green Leaves Therapy guide will step you through a relaxed, gentle walk through the ANBG, with key activities designed to assist you to slow down and connect with nature.

[greenleavestherapy.org](http://greenleavestherapy.org)

#### The Story of the Australian National Botanic Gardens

**12 – 18 June 11.00 am and**

**2.00 pm**

**Free\***

How did these gardens start? Where were the first trees planted and who planted them? Who were some of the people that shaped the Gardens and what was their contribution? What is next in the Gardens development? Join a free guided walk to visit significant historical developments while enjoying the plants.

### Storytime in the Gardens

**First Friday of every 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.

### Heritage Festival

#### Indigenous Plant Use Trail

**12, 19, 26 April 10.00 – 11.00 am**

**\$10 per person**

**Book on ANBG website**

Look at Australian plants with new eyes and discover the importance of plants to First Nations people in Australia. This ranger-led walk will take you along the Aboriginal Plant Use Trail where you will learn about how Australia's plants are used for food and medicine, to make tools and weapons and for ceremonial practice.

#### Traditional Weaving Workshop

**Thursday 13 April 10.00 am – 1.00 pm**

**\$135 adult (13+yrs)**

**Book on ANBG website**

Learn the age-old skill of weaving with Ronnie Jordan, a Kalkadoon Pitta Pitta woman, who will share her traditional ecological knowledge with you.

#### Bush Animal Weaving Workshops

**Wednesday 19 April 10.00 –**

**11.30 am and 1.00 – 2.30 pm**

**\$55 adult and child, \$38 adult,**

**\$20 child**

**Book on ANBG website**

Enjoy a hands-on experience where you and your child can each create a woven bush animal. The workshop inspires a connection to Aboriginal culture, and both children and adults will learn techniques of the age-old art of traditional weaving.

#### Storytime in the Gardens

**Friday 21 April 10.00 – 10.45 am**

**\$5 per child, adults and infants**

**under 12-months free**

**Book on ANBG website**

Join Holly Bidwell from the ACT Storytellers Guild as she brings folk tales and modern stories to life with puppets and props during Canberra's Heritage Festival 2023. Suitable for pre-schoolers and older children. Adults welcome too!

\* Meet at the clock near the bridge.



## **Exhibitions**

### **Visitor Centre Gallery**

**Open Daily 9.30 am – 4.30 pm**

**Free**

**8 April – 7 May**

#### **High Country Natives**

An exhibition highlighting native plants from the alpine, subalpine, montane and tableland regions by the Friends of the ANBG Botanic Art Group. Preview for Friends from 2.00 pm on 7 April.

**10 May – 4 June**

#### **Our Wonderful Natural World**

See ANBG website for details.

**7 – 29 June**

#### **Banksia Views**

A showcase of works from the Painting with Parkinson's program, reflecting on member's experiences with the ANBG and the Banksia Centre over the Painting with Parkinson's 25-year history.

**1 July – 6 August**

#### **Dead Puppets Society**

Megafauna take up residence in a prehistoric installation when not wandering through the Gardens. The Dead Puppet Society is an Australian based production house creating deeply imaginative visual theatre, public art and sculpture, combining old school craftsmanship with cutting edge technology.

**9 August – 17 September**

#### **Bushland Retrospective**

Catch a glimpse of Anton Uildriks' paintings produced over two decades. This exhibition aims to provide the viewer with an appreciation of Australian flora and fauna and inspire young artists to pursue their own creativity.

### **Canberra Tree Week**

#### **Trees and Me**

**29 April – 7 May 8.30 am – 5.00 pm**

**Free**

See Canberra's budding artists' work on display in a special outdoor exhibition showcasing the winning entries from the children's 5–12 years *Trees and Me* drawing competition. On display near the Banksia Garden.

### **MEGAfauna**

#### **MEGAfauna: A walk through time!**

**1 – 30 July 8.30 am – 5.00 pm**

**Free**

A family-friendly outdoor discovery trail combining nature, science, art, culture, history, and fun! Adventurers are encouraged to take a walk through time to gain an understanding of the unique plants and animals that existed in prehistoric Australia.

### **Migrating MEGAfauna**

**1 – 7 July. See ANBG website for times**

**Free**

Following their migratory route to seasonal feeding grounds, three ancient diprotodons have become lost in the city and have found their way to the ANBG. As they try to make their way in the altered landscape, these visitors from a forgotten time provoke a reflection on how the landscape has changed, and the importance of the Gardens for plant and animal conservation. Sponsored by the Friends of the ANBG and the ACT Government.

#### **MEGAfauna afterDARK**

**1, 2, 5, 6, 7 July 5.30 – 8.30 pm**

**Costs apply**

**Book on ANBG website**

Take a journey around the Gardens at night and come face to face with ancient giants. An illuminated experience with life-size diprotodons by award-winning theatre company Dead Puppet Society. Sponsored by the Friends of the ANBG and the ACT Government.

#### **Poetic Puppet Illusions**

**4 July. See ANBG website for times**

**Suitable for ages 8+**

**Costs apply**

**Book on ANBG website**

Learn the various construction and movement techniques for the creation of puppets with this inspiring workshop by the Dead Puppet Society. Through a series of training exercises using brown paper and pre-cut card puppets, Associate Artist, Helen Stephens, introduces the techniques that the company use to bring the Megafauna puppets to life.



# Thursday Talks

April to July 2023

One hour talks are held at 12.30 pm every Thursday from February to November in the Gardens' Theatrette. 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. 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)

## 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.

David is happy to sign copies of his new book after the talk.

### 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.

### 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 (*E. imlayensis*) and the Suggan Buggan Mallee (*E. saxatilis*)

### Thursday 27 April

**Dr Liz Truswell**  
**Marie Stopes, palaeobotanist extraordinaire!**

Marie Stopes was one of the most flamboyant and influential figures of the early twentieth century. Liz will discuss Marie's wide-ranging contributions to palaeobotany, and the way these were overshadowed by her later career on birth control and the role of women in marriage.



Marie Stopes, an extraordinary paleontologist.

## May

### Thursday 4 May

**Peter Byron & Joe McAuliffe**  
**Enlightened conservatory design and plants**

Peter and Joe will talk about the design and construction of the conservatory building and plants. Peter will focus on the building being for botany and visitors. Joe will talk about thematic content and plans for displays, as well as plant selection and succession, cultivation and conservatory horticulture.

### Thursday 11 May

**Bronwyn Collins**  
**Training the future: 30 years of the Volunteer Botanical Training Program**

Bronwyn, from Centre for Australian National Biodiversity Research, will look at the history of the program, outcomes for participants and some of the more recent challenges in running a successful program.

### Thursday 18 May

**Tom Masaglio**  
**'Say cheese-tree!' Exploring Australia's vascular plant photographic record**

Tom, from University of NSW, will talk about a complex mix of factors resulting in almost 18 per cent of Australia's native vascular plant species being without easily accessible photographs. South-east Australia is well covered, but Northern Territory, Queensland and Western Australia have thousands of unphotographed plants.

### Thursday 25 May

**Dr Ben Walcott**  
**Gardens and biodiversity**

Ben will talk about how gardens are important for biodiversity. Native plant gardens are particularly important for hosting rare and endangered plants as well as insect and birdlife.



## June

### Thursday 1 June

#### Jo Harding High Country Bush Blitz

New species of spiders, from huntsman to jumping spiders are just some of the amazing finds from the Australian Alps Bush Blitz. Jo, from Bush Blitz, will share the discoveries from their highest Blitz ever, along with stunning photos and video podcast hosted by Bry the Fly Guy.

### Thursday 8 June

#### Alison Turner & Marilyn Faunt Fern stories: The search for the 'magical fern seed' and how fern knowledge grew

"Only people of discernment and good taste could appreciate the flowerless charms of ferns." Such was the thinking that underpinned the fern mania of the mid-1800s when ferns became fashionable. Volunteer ANBG guides Alison Turner and Marilyn Faunt will share their fern discovery journey and hope we look at ferns with fresh eyes and discernment.

### Thursday 15 June

TBA. See details on the Friends website.

### Thursday 22 June

#### Associate Professor Caitlin Byrt Botanically inspired systems for sustainable resource management

Caitlin, from ANU, will talk about how plants inspire improvement in sustainable management of food, energy and water resources. Harvesting resources from industrial and urban wastewater and developing resource-use-efficient crops are key steps towards transitioning to a circular green economy and building a sustainable future.



Murray Fagg, April

Prickly Rasp Fern (*Doodia aspera*) was the first Australian fern brought to Kew Garden, UK.

### Thursday 29 June

#### Dr Suzi Bond An amazing array of butterflies

Suzi, from the Australian Bureau of Statistics, will explain why the ACT's park reserves and the Gardens are so important for our common species of butterfly, as well as some of our lesser-known gems. She will then outline the threats facing butterflies and recommended conservation measures, including why citizen scientists have such a critical role to play.

## July

### Thursday 6 July

#### Dr Liz Reed Australia's fossil caves: Underground archives of past biodiversity

Liz, from the University of Adelaide, will talk about refining the age and palaeoenvironmental context of key deposits from caves in the Naracoorte area of the Limestone Coast region of South Australia.

### Thursday 13 July

#### Dr Peter Caley Identifying drivers of decline of the bogong moth – a call out to Caughley

Dr Peter Caley of CSIRO will explore which of the numerous putative drivers are consistent with the observations of the decline of the famous bogong moth (*Agrotis infusa*).

### Thursday 20 July

TBA. See details on the Friends website.

## 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.

### Thursday 27 July

#### Dr Anna Howe Pepper trees grow in the old school yard

Anna will look at how pepper trees came to be planted in many school yards across Australia, and other sites such as country police stations, many rural gardens of note, Avenues of Honour, and the ANU. What is the future of these old trees and what of the next generation?





*Friends* of the  
Australian National  
Botanic Gardens

*Helping the Gardens Grow*