

Number 105 December 2023





Australian National Botanic Gardens

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

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

Email material to the Fronds Committee at the above email address or place in the Friends letterbox, located inside the Gardens Visitor Centre, between 9.30 am and 4.30 pm, Monday to Sunday. Editorial messages: telephone 02 6250 9548. Design and layout: Sharon Abrahams Printing: Union Offset Printers ISSN 2207-6492

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Friends of the ANBG is a member of the AAFBG

Front cover: The Yellow-faced Honeyeater, seen at the spring Wake up with the Birds walk, is migratory, moving north and south with the seasons. This bird on a *Grevillea barklyana* was collecting nectar and insects to feed its hungry chicks. Photo by Pam Rooney.

Pollinating young minds

Developing a Plant Science Learning Hub

Australian native plants are at the heart of an exciting new interactive educational resource supporting educators to confidently teach plant science to upper primary students.

Created by educators and scientists at the Australian National Botanic Gardens (ANBG), the Plant Science Learning Hub will inspire and engage students in the science and stories surrounding Australia's unique flora. The online platform provides educators with scientifically accurate resources aligned with the Australian Curriculum, which includes interactive online components, fun outdoor activities, and plenty of supporting materials for teachers including lesson plans and background information.

In the coming months we will launch four learning modules packed full of activities and information: Lifecycles, Plant Structure, Pollination and Seeds. Our goal is to bring Australian plant science – and botanic gardens – into classrooms across Australia!

The Plant Science Learning Hub is an exciting project set to inspire curious minds. So how did this project come to be?

Background: Education at the ANBG

Home to scientific experts, incredible conservation stories, and the world's largest living collection of native Australian plants, the Gardens is an ideal venue to learn about plant science. Education is a core part of our mission: the Gardens have been engaging and inspiring the Australian public about Australian native plants for 55 years, and our Education Team runs on-site education programs focused on plant science and the environment.



On the website, content is divided into four learning modules – Plant Life Cycles, Plant Structure, Pollination, and Seeds – which form a logical sequence of learning to build on prior knowledge.

Local and interstate students from preschool to tertiary level visit the Gardens to participate in hands-on, inquiry-based programs, all of which are linked to the Australian Curriculum.

In 2020 we invested in the development of a five-year Education Strategy and implementation plan. Through this process we identified a key opportunity: to expand our national educational reach and extend 'beyond the garden wall' by developing an online plant science education hub that would be available to teachers and students around Australia.

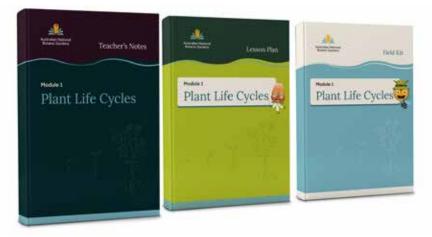
Aims

From the outset we identified two key aims for the project:

• To inspire and engage students in the story of Australian plants through a fun and engaging learning platform that meets Australian Curriculum standards.

• To better understand teachers and students, their needs, and challenges, and use those insights to help shape the new learning platform.

Each learning module includes detailed Teachers Notes, Lesson Plans and a Field Kit of activities.



ANBO

Pollinating young minds (cont.)



Characters Billie the Explorer and Bianca the Banksia were created to guide the user through the website and interactive elements while providing fun facts.

Research

To ensure we could achieve our project aims we embarked on a phase of research. We set out to answer several key questions, such as: 'How can we leverage our world class scientists, globally significant living collection and unique conservation stories to both educate about and increase understanding and appreciation of botanic gardens?' and 'What do teachers and students need and want in a project like this?'

To address these questions we conducted a series of workshops and interviews with teachers and classroom groups from metropolitan, regional and rural areas across Australia. This data gave us important insights into teaching and learning styles and preferences and allowed us to identify key inclusions. It also allowed us to develop a variety of teacher and student archetypes that have helped us ensure we are addressing the varied requirements of our diverse audience. Based on our research we built a learning platform that is easy to use and free; reliably fact checked; fun, hands-on and experiential; and uses enquiry-based learning. It also includes outdoor activities to allow students to connect with local natural spaces.

Development

We held a series of ideation sessions with Gardens educators and scientists to develop a plan for our new product. We settled on four learning modules focused on different areas of plant science: Plant Life Cycles, Plant Structure, Pollination and Seeds.

The learning modules form a logical sequence of learning designed to build on prior knowledge.

Each module is a unit of work containing all the resources teachers will need for a whole term of plant science education, linked to the Australian Curriculum for grades 4 to 6. Each module includes:

• Background notes for educators, lesson plans, and a field kit with outdoor hands-on activities. Activities include code breaking to try and 'crack the code' of seed germination, tree measuring and mapping, and designing your own flower.

• An introductory video featuring our wonderful scientists and experts which uses the Gardens to highlight major topics within each module.

• Online interactive activities to enhance and gamify the student's learning experience and test the knowledge they have gained. Students receive an achievement badge after completing an online activity.





Field Kit activity Collecting 'hitchhiker seeds' on socks and planting them.

Subject matter experts

Educators need to know that their resources are up-to-date and scientifically correct. All content on the Plant Science Learning Hub was developed in consultation with subject matter experts including horticulturists, seed scientists, teachers, botanists, biologists and our education team. These experts worked collaboratively to develop and review our modules. Scientists provided content about Australian native plants, and the education team tailored the often complex scientific information into a format suitable for students.

Creating a national product

In creating a national product, we faced an interesting challenge: How do we create activities that are equally relevant for students in inner city Sydney schools and schools in outback Western Australia or the Northern Territory? To meet this need we have designed activities and content to be adaptable to different environments.

Where possible, examples focus on plant groups that are well represented across Australia's diverse environments and activities are structured so that they can be adapted for use in any environment – be that a schoolyard, local park, or nature reserve. Activities can also be modified according to the needs of students and educators, used as a stand-alone resource, or used in conjunction with other activities in the lesson plan. We provide clear directions and examples for each activity and include printable resources where required.

Future growth

Following the release of the Plant Science Learning Hub we will seek feedback from teachers and students around Australia to continue refining the existing product and develop further learning opportunities.





Field Kit activities Top left: Pressing plants to make herbarium specimens. Top right and above: Creating life cycle collages.

We will also offer professional development opportunities to educators across Australia.

Launching in the coming months, the Plant Science Learning Hub will be freely available on the Gardens website **anbg.gov.au**

Acknowledgement

This project was made possible due to additional project funding and in-kind support from Parks Australia, Department of Climate Change, Energy, the Environment and Water production, and the Friends of the ANBG. ANBO

Sally Ingham and Ellen Cheney

Nestling to fledgling of a Wedge-tailed Eagle

Raptors are commonly sighted in and around the ANBG. Brown Goshawks and Little Eagles have been regular spring-time visitors, and have had variably successful nesting efforts.

The large tracts of bushland and the wooded hills of Canberra also form the home ranges of a number of Wedgetailed Eagles (WTE).

Over the past couple of years, we have been privileged to document photographically the successful raising of juvenile WTE within the Mount Majura Nature Reserve, a few kilometres to the northeast of the city centre.

A useful, comprehensively referenced summary of the general behaviour of WTE, including a number of specific studies within the ACT, is available on Wikipedia at **en.wikipedia.org/wiki/** Wedge-tailed_eagle

Wedge-tailed eagles build substantial nests up to a metre in diameter with similar depths, from 10 to 30 metres above the ground. Typically, a nest is located on the lee slopes with respect to the prevailing wind, with good views around and not on a ridge crest. Nests may be occupied in successive years, such as the site we have been observing.

With consistent prey available, WTE range over areas with a radius of about 3 km, and occasionally further. Rabbits commonly form a prominent part of the prey brought to the nest.

This year (2023), we believe our first sighting of a chick was on 1 August, as a small white downy object beneath the protective bill and gaze of an adult (photo 1).









Top: Photo 1, 1 August 2023. Adult wedge-tailed Eagle with downy chick beneath bill. Centre: Photo 2, 5 September. Eaglet and adult Wedge-tailed Eagle. Eaglet's eyes not fully open, and body still covered with down.

Bottom: Photo 3, 12 September. Adult and eaglet, eyes fully open and body still down covered.

Normally, the first black quills of the primary feathers begin to appear after about two weeks. But the eaglet at the end of August was still covered with white down, with eyes that that were not fully open, and no sign of the appearance of the upper wing coverts (photo 2). So it is possible that this was a hatching later than the first week of August.

The eaglet on 12 September (photo 3) was also still down-covered, and guarded by an adult during much of the day. A few days later however, the eaglet was standing and the quills of the leading edge and tips of the wings were beginning to appear (photo 4).

By the end of September, the eaglet was spending much of the day by itself, having been fed early in the morning by an adult. Many more feathers on the body and tail had now appeared. It was standing more frequently, moving around the nest, flexing its wings, and preening to remove down (photo 5).

The development of the fledgling eagle seems to have been more advanced in 2022 than this year, when the fledgling flew for the first time in late-October, about three months after hatching.

Preparing for the first flight, the young bird was vigorously flapping wings and stretching, with just a few whisps of down remaining (photo 6).

Richard Arculus, Marion and Simon Jones

*Richard and Marion were leaders in the Friends' Wake Up with the Birds walks at the ANBG this year. One of Richard's eagle photos recently featured on the ABC TV weather pics.







Top: Photo 4. 16 September. Adult and juvenile with first growth stages of fledgling feathers. Centre: Photo 5, 20 September. Eaglet with extensive feather growth, mobile around the nest, and flexing wings.

Bottom: Photo 6, Early November. Juvenile with near-adult plumage but some downy remnants, flexing wings, bouncing on the nest, and almost ready to fly.

Getting ready for new Conservatory

Walking past the Ian Potter National Conservatory construction site, we can see it reaching up, taking on the shape of the concept drawing with which we have become familiar.

Now that opening day is only months away, many of our volunteers are working hard behind the scenes to ready the plants and to prepare to support the Conservatory as it comes into operation.

A new intake of guides is proposed for early 2024 (see Friendly Chatter p13) to assist with showing off the amazing building and to introduce visitors to the new collection; volunteers are also being sought for 'front-of-house' to assist with welcoming visitors, handing out information, and explaining the layout; and plans are already being made by the Photographic Group to take night photos inside the Conservatory.

Volunteers from the Gardens' Greenhouse Volunteers program are supporting maintenance of our Conservatory plant collection. (See Gardens Shorts p19.)

The Botanic Art Group and the Volunteer Guides have been invited to be part of the interpretation of the collection in the Conservatory. They share accounts of their task and roles with us below.

Interpretive signage

An art project was initiated at the request of the ANBG for the Friends' Botanic Art Group to create plant drawings for interpretive signage for the Conservatory, for visitors to enjoy an immersive botanical activity.

On entering the Rainforest Chamber, visitors will be invited to select a large Room Card from a display wall. This card will initiate a captivating challenge, testing their observational skills. The aim will be to match the plant illustration on the Room Card



Artist's impression of the the Ian Potter National Conservatory entry.

with the actual living plant in the Conservatory, thereby fostering a deeper appreciation for the plant's unique features that might otherwise go unnoticed during a casual stroll through the exhibit.

Each Room Card is crafted from clear perspex and exhibits an etched drawing and information about a specific plant in the Rainforest Chamber, with further interesting facts obtained from the card's QR code.

This art project was a collaborative effort, involving approximately twenty members of the Botanic Art Group who dedicated numerous hours to meticulously capture the defining features of some of the plants in the Conservatory.

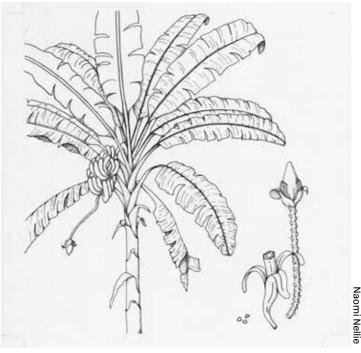


Illustration of *Musa banksii* (Native Banana). Original art by Naomi Nellie completed in black ink, for reproducing as an etched image on a Rainforest Chamber Room Card for the Conservatory.



Volunteer Guides in a glasshouse.

The drawing process included visits to the ANBG living collection in on-site glasshouses for photographs and sketches, along with reference to botanical descriptions.

The initial pencil drawings were carefully composed by the artists to illustrate the plant's characteristic features and growth habit within the limits of the space available.

After review by an ANBG botanist the pencil drawing was completed in black ink by the artist. The original drawings have been generously donated to the ANBG art collection by the artists involved.

Marg Saul

Conservatory handbook

A working group of Volunteer Guides is preparing a handbook on the Conservatory for use by other guides and ANBG staff.

The introductory chapters of the handbook will contain background information on the Conservatory and its development.

The first chapter is about the history of conservatories around the world.

The second is on the development of the Conservatory at the ANBG, beginning with the 1935 Dickson report.

Other chapters cover the layout of the Conservatory, and the tropical ecosystems that will be represented by plants in the Conservatory.

The main part of the handbook will include detailed information on more than 150 plants that are likely to be in the Conservatory when it opens or at some later date.

Members of the working group enjoyed a visit to the tropical nursery glasshouses to see the plants and to hear about some of the significant challenges the horticulturalists have faced.

Brief information about a number of plants has been prepared for the text of cards that will be provided for visitors who are unable to take a guided tour.

When the Conservatory has been planted out the working group will map out a guided walk and then run training for other Guides so they will be ready to lead tours for visitors.

Kerry Moir

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.



Friendly Chatter

Botanic Art Group

The Botanic Art Group has been meeting at the Gardens for the last 16 years. Membership has grown to over 100 members and three meetings a month are held at the Banksia Centre where members are able to work with specimens selected by the Gardens' horticulturalists.

Each year members present an exhibition of artworks at the Visitor Centre Gallery and for the last 16 years the Friends have purchased art works to donate to the Gardens. The donated collection was on display in the Visitor Centre Gallery in November. One of the paintings on display was a work by Jacqui Gilleland, Hakea laurina. This year Jacqui submitted a series of coloured pencil works featuring eucalypts to the Royal Horticultural Society in the United Kingdom. She was awarded a silver medal to add to her collection of medals from this prestigious organisation. Congratulations to Jacqui for this magnificent effort.

Botanical artworks take many weeks and sometimes months to complete. Members are currently working to prepare for our next exhibition in April, 2024. Bush Fragrance has been selected as next year's theme, celebrating the aromas of native flora, many of which have been used to develop commercial fragrances, as well as being valued for personal pleasure.

Kate Ramsey



Jacqui Gilleland.



Hakea laurina by Jacqui Gilleland and Acacia leprosa 'Scarlet Blaze' by Annette Dahler, were presented to Anthony Whalen (centre), Acting Executive Director of ANBG in August, by Neville Page, President, and Linda Beveridge, Vice President. These works of art were purchased from the Botanic Art Group's annual exhibition by the Friends for the ANBG's collection.

Growing Friends

Spring weather has been rather confusing this year, vacillating between 10 degrees and 30 degrees in a day or two. Blossoms have come out in bursts in between as a result.

Growing Friends had a very successful plant sale in late September. Canberra gardeners came very well prepared: with lists of plants, they were eager to select from the plants grown exclusively from cuttings and seeds collected from the ANBG.

Second-hand gardening, bird, bee and other nature-related books were also offered at the sale this year, and attendees were very eager to purchase these as well.

Many of the books were donated by Jan Simpson, but the library and other individuals also donated. A total of over \$7,000 was raised from the plant and book sales. This will go to the Friends, for future projects within the Gardens. The group's volunteers are now looking to quickly replenish plant stocks, in anticipation for the next year's sales in March and October.

Growing Friends would like to take this opportunity to thank the public for their ongoing and continuing support of its sales.

Next year, 7 May 2024 will mark 30 years from the first meeting of Growing Friends. Current members are considering ways of celebrating this milestone and would like to hear from any past members who would like to be kept informed of a planned gathering of Growing Friends, past and present.

For more information about the plants we sell and about the group and membership, please email growingfriends@friendsanbg.org.au

Donna Growcock

Photographic Group

It has been a milestone year for the Photographic Group with its tenth annual exhibition *Illuminate* '23 now on display in the Visitor Centre. The exhibition will be on show until 10 December with all works for sale. Awards are in memory of former member David Cox, and visitors are encouraged to vote for the People's Choice Award.

This year we took on the production of the ANBG 2024 Calendar now on sale in the Botanical Bookshop. It has been another opportunity to share the work of group members, promote the Gardens, and identify key ANBG program dates.

The group has continued to grow with over 160 members on the mailing list. Meetings are held on the last Friday of the month in the ANBG Theatrette commencing at 10.00 am. If there is no outing in the Gardens, the meeting has a guest speaker followed by members presenting their recent work.

Our August meeting hosted Gavin Smith giving an entertaining talk on appreciating snakes in the Canberra region. The members' show and tell included photos of recent sightings of eastern brown snakes in the Gardens.

At the September meeting Graham Gall and Jim Gould discussed the exhibition and tips for preparing exhibition quality photos were given. In October Michael Mulvaney spoke on the Canberra Nature Map citizen science initiative, and in November Tobias Hayashi told us of locally flowering orchids. With the opening of the Conservatory next year the PG is planning a night photo session.

Rodney Garnett

An enthusiastic group learning plant keys for *Acacia*.



Xerochrysum bracteatum.

Plant Science Group

The Plant Science Group continues to have talks in the Theatrette at 10.30 am on the second Monday of the month. These talks are open to members of the Friends and the most recent talks were WeedScan: A mobile app for the identification and reporting of priority weeds in Australia presented by Dr Alexander Schmidt-Lebuhn and Temperate Native Grasslands: Prospects for restoration presented by Dr Ken Hodgkinson.

If you wish to receive details of these talks please send your name to plantscience@friendsanbg.org.au Lesley Harland

Plant Recognition Group

Plant Recognition is a new special interest group of Friends. It started in the Plant Science Group to address concerns that developed with the closure of the Botanical Resource Centre in December 2022 which has lessened public access to plant information.

Three plant ID workshops have resulted this year and been advertised to Friends via the monthly e-bulletin: Acacia in September and Proteaceae in October were well attended. A grasses ID session is, at the time of writing, scheduled for November.

The success of the Acacia and Proteaceae workshops is in very large part due to Rosemary Purdie who willingly agreed to be the botanical expert for the sessions. Isobel Crawford also assisted in the Acacia session and will lead our grasses session. Rosemary put a great deal of time and energy into the first two workshops: not only did she develop and present practical material to the eager students using the resources in the Celia Rosser Room of the Banksia Centre, she also collected the flowering specimens to demonstrate ID using dichotomous keys. We are most grateful for their outstanding commitment.

John Fitz Gerald



Friendly Chatter (cont.)

Volunteer Guides

Being a guide

Being a Volunteer Guide involves spending lots of time in the beautiful ANBG and sharing them with visitors. You can learn as much as you like about Australian native plants; and you are part of a very enthusiastic group. Here, three current guides share their thoughts on what they enjoy about being a guide at the ANBG.

Simon

Guiding at the ANBG is pure joy. We share with the public Australia's unique flora through themed walks, storytelling and conversations.

We also demonstrate the amazing effort of the Gardens' staff in showcasing and conserving Australia's floral heritage. There are also the social benefits of engaging with likeminded visitors, guides and ANBG Friends.

Coming from Western Australia, the ANBG is a wonderful place to see a good sample of the mega diversity of our Kwongan sand plain flora which soothes my sense of place.

Kav

After I retired in 2018, I was looking for a volunteer opportunity that was a bit different, was outdoors and provided an opportunity to learn new skills.

I've always had an interest in Australian flora and fauna and enjoy being out in nature, so when the opportunity arose to become a Volunteer Guide at ANBG, it ticked all the boxes.

I don't have a science or botany background but have some basic knowledge of Australian plants as a home gardener.

Despite all the interruptions to my guiding practice due to Covid 19, I have continued to develop my skills and have learnt so much from other guides. I just love showing visitors around our beautiful Gardens.



Volunteer Guides Kay and Leonie.

Leonie

I qualified as a Volunteer Guide in 2022. I think that the ANBG must be one of the most attractive outdoor places in which to work. It is truly a pleasure to interact with the visitors and to showcase the rich diversity of plants and settings. Gardens staff and volunteers are always so friendly and enthusiastic. I enjoy the camaraderie and support of the volunteer cohort who provide so many opportunities for further learning.

Kerry Moir

Ted Edwards (1945-2023)

Edward David Edwards AM, known as Ted, died earlier this year on 7 August.

Ted was a member of the Friends for many years. He trained as a Volunteer Guide in 2010 and led many fascinating walks for both the public and fellow guides.

Ted can best be summed up as a quiet but extremely knowledgeable person who found joy in sharing information with many people.

Ted devoted his life to Australia's moths, the landscapes and habitats that supported them, and those who appreciated them. He collected widely and built the Australian National Insect Collection at CSIRO to an immensely valuable resource. He co-authored a number of books on Australian moths, the most recent being Moths of the ACT in 2022.

In 2012, Ted was awarded an Order of Australia for his contributions to science.

When I trained as a guide, Ted was wonderfully helpful. When he came on my early walks, he always quietly added some very relevant information. He was a kind and generous man who will be missed.

Pam Cooke



Nature Journaling

Nature Journaling meets on the first Monday of each month. We meet at the Visitor Centre at 10.00 am. All Friends are welcome

If you would like to join us, please contact **lespage26@gmail.com**

Lesley Page

Banksia sp. by Lucinda Lang.

Volunteer Guide opportunity

Passionate about Australian plants? Enjoy spending time outdoors with like-minded people? Keen to expand your skills and knowledge? Then the Volunteer Guides Program at the Gardens is for you!

The Gardens is now recruiting for Volunteer Guides to start in 2024. No botanical background is required to apply. We offer a training program, mentorship and professional development opportunities to equip you with the knowledge and skills you need for guiding.

Volunteer Guides provide walking tours in the Gardens, driving tours in the Flora Explorer electric minibus and walking tours in the Ian Potter Conservatory, due to open in 2024.

Walking tours of the Gardens are free and run twice daily for one hour. Guides are encouraged and supported to deliver seasonal and themed walks which offer key information about native plants and the Gardens science and conservation work.

Flora Explorer bus tours run for 45-minutes on weekends and public holidays, during school holidays and for group bookings. The Flora Explorer seats up to 10 passengers and offers an accessible tour via a set route, visiting key areas of interest in the Gardens.

Tours in the Ian Potter National Conservatory will run daily for 30 minutes.

If you're interested in applying use the QR code to complete the application form, or email **volunteer@anbg.gov.au** for further details.

Information sessions will be held online on Thursday 18 January at 10.30 am or face-to-face on Wednesday 24 January 24 at 5.00 pm in the ANBG Theatrette. Email **volunteer@anbg.gov.au** for further details on information sessions.



Friends Briefs

Friends Annual General Meeting

The 35th AGM of the Friends of the ANBG was held on 19 October 2023 in the ANBG Theatrette. Full reports from the President and Treasurer may be found on the Friends website **friendsanbg.org.au** under About Us.

President's report

The President, Neville Page, reported on the year's highlights.

Friends membership remains strong, currently standing at 2,135 memberships. As many of these are household and group memberships, this equates to about 2,935 members.

Several projects have been funded in 2022-23, including: \$4,000 for honours thesis research on the impact of climate change on Alpine Euphrasia, and \$27,500 for display plants for the gardens adjacent to the Ian Potter National Conservatory. Two additional commitments this year were for: ongoing research scholarships (\$7,500 annually) and \$82,000 towards the installation of a permanent exhibition in the foyer of the Visitor Centre. The Don Beer Memorial Scholarship will finance its first scholarship next year. Donations to the Scholarship are welcome and are tax deductible.

Commitments for projects to be funded in 2023-24, include: online education resources (\$50,000), fit-out for the seed bank (\$20,000), rejuvenation of How Do I Survive the Red Centre (\$10,000) and further iconic large plants (\$27,500).

Growing Friends had two successful sales, in spring 2022 and autumn 2023, raising over \$15,000 for the Friends. These sales offer well known plants for sale, but the group is also diversifying, to cater for native plant enthusiasts, making available plants it has not previously propagated.



A group of Friends on a Fungi Walk led by Gardens expert Heino Lepp.

Botanic Art Group meetings have seen an increase in attendance. The 16th annual art exhibition, *High Country Natives*, was held in April–May 2023.

The year was one of strong growth for the Photographic Group. Their ninth photographic exhibition included images by 21 exhibitors. This year the Photographic Group has taken on the production and printing of the ANBG Gardens Calendar, on sale in the Botanical Bookshop. The group has also responded to requests for images from the Friends, the Gardens and others, including Questacon and Birdlife Australia.

Thursday Talks took place on 44 weeks, the total audience for the year being 1,740 (an increase of 806 compared to the previous year) and almost \$3,000 in donations was received.

Attendance at monthly talks organised by the Plant Science Group averaged 25 people, who enjoyed an interesting range of speakers and topics.

The popular brochure, *Flowers*, *Fruit* and *Foliage*, continues to be produced every fortnight by volunteers Ros and Ben Walcott.

Nature Journaling is into its third year at the Gardens, with a strong core of regulars. The Schools Photographic Competition was suspended in 2020. A new Competition Committee has now been formed, and will hold a competition in 2024.

A newly formed Group, the Plant Recognition Group, is organising workshops on plant identification. The first workshops were booked out, suggesting a high level of member interest in this topic.

The Social Events and Activities committee arranged a number of walks in the Gardens with experts in 2022–23 including Fungi, Cryptogams, Birds, Butterflies and through the Bushland Precinct. They were well attended and greatly enjoyed by Friends.

Voluntary Ambassadors of ANBG and Friends, Pat and Warwick Wright, who make themselves available to speak to outside groups, spoke to 14 groups this year.

The Friends have three key means of communicating with members. The monthly e-newsletter; *Fronds*, published three times a year; and the Friends website. A new and updated website will be rolled out in 2024.

The Gardens and the Friends jointly hold a Volunteer Recognition Ceremony each year to thank those people who give of their time to contribute to the ANBG Volunteer Program, and to the Friends Special Group activities.

Many Friends members participate in the Gardens Volunteer Program. This includes strong support for the Volunteer Guides, Horticultural Volunteers, the Seed Bank, Visitor Centre, Library, Herbarium and many others. The President offered heartfelt thanks to everyone who has contributed over the past year, including Council members, group convenors, membership team, workers, volunteers and Gardens staff.

Neville Page

Treasurer's report

The Treasurer, Rod King, reported that consolidated income for the year was \$203,791 including \$29,271 for the Friends Public Fund.

Expenses and contributions to Gardens projects amounted to \$99,205, resulting in a Net Surplus of \$104,586. At 30 June 2023, retained earnings totalled \$332,659, including \$131,343 for the Public Fund. Of the \$332,659, approximately \$190,000 has already been committed.

The Treasurer reported that the Friends continue to be in an excellent financial condition, which allows the organisation to continue its work in support of the ANBG.

Rod King

Welcome to new Council members

Of the five vacant positions on Friends Council, four were filled at the meeting:

• Linda Beveridge was re-elected as Vice-President

• Rod King was elected as Treasurer (Rod took on the role in September to fill a casual vacancy, and has now been elected in his own right). The President thanked hard working Treasurer, Anne Holmes, who had to step down from Council from 31 August 2023.

• Kerry Moir was re-elected, and Beth Tyerman was elected, as ordinary members. Beth has previously served on Council filling a casual vacancy.

There were no nominations to succeed Marg Nicholls in the role of Secretary. This position will need to be filled on a casual basis. If you might be interested in joining Council, please get in touch with Neville Page to find out more about what's involved.

The Friends thank all retiring Council members.

Linda Beveridge



Peter Byron, acting Branch Head and Executive Director, addresses Friends at the AGM.

Executive Director's report

Peter Byron, acting Branch Head and Executive Director, reported on the year's activities at the ANBG.

I would like to start by thanking the members of the Friends and the Friends Council for all the support you provide to the ANBG staff. We could not deliver the range of conservation programs and visitor experiences without this significant support.

We had a welcome start to this financial year with funding provided for an additional Living Collection Horticulturist and an additional Nursery Horticulturist focused on the Conservatory collection.

The year was a busy one with a total of 529,131 visitors, with several months of record visitation and all months above the long-term average. The Education Unit experienced record school numbers during the year with 19,795 students, a 29 per cent increase over the previous record.

An exciting new web-based education program for schools, the Plant Science Learning Hub, will be launched online in the coming months. (See article on p3.) A number of successful events have been held during the year, including MEGAfauna: a walk through time! and Botanica, a food and spirits festival that attracted 1500 people over two days.

There are currently 190 active volunteers across nine programs, including 70 guides. A new position, Volunteer Coordinator, has been created and filled. A new online rostering system has been introduced using the program Better Impact. There will be another guides recruitment in early 2024 to ensure enough guides for current programs and for the Ian Potter National Conservatory.

The Garden Care Volunteers program has re-started, and the Greenhouse Volunteers program has now been in operation for 12 months, in readiness for the introduction of plants into the Conservatory.

Repairs and maintenance have been completed during the year, including in the Tasmanian Garden, the Rainforest Gully, Section 40, Rock Garden and the Gondwanan garden.

The bushfire suppression system has been upgraded and significant risk mitigation achieved by extending the ANBG's firefighting system around the outer perimeter fence line. This will be completed before the start of summer.

Preparation of plants for the Conservatory has been a major task this year and the collection is ready to be installed when construction is completed in May 2024.

The ANBG is working with scientists from the Australian National University on the installation of a mobile plant pest surveillance unit, called a Sentinel. This automated air sampling device will monitor airborne pests and diseases such as Myrtle Rust. (See articles p20–21.)

Friends Briefs (cont.)

The ANBG is a partner in the Tropical Mountain Plant Science project, a collaboration of 12 organisations including the ANBG's National Seed Bank and Nursery. The project is responding to urgent calls for ex situ conservation measures for plants in Queensland's Wet Tropics Bioregion. It was a finalist in the 2023 Eureka Prize for Excellence in Botanical Science held in September: the Eureka Prizes are Australia's leading science awards.

Our Nursery and Conservation team attended an event for Threatened Species Day at Parliament House in September and showcased some of our threatened species to Ministers and Members of Parliament.

In September the ANBG Nursery delivered 200 Small Purple Pea (*Swainsona recta*) plants for re-wilding in the ACT, in partnership with the ACT Government.

The Rare Blooms Project is a threeyear partnership program in which the ANBG is collaborating by supporting conservation of the threatened Omeo Storks-bill, (*Pelargonium* sp. *Striatellum*) by investigating and documenting its seed germination and vegetative propagation requirements.

National Seed Bank Staff and volunteers embarked on a major collecting trip to Uluru Kata Tjuta National Park, spending ten days taking 35 collections of 34 different taxa. This trip was also funded through the Rare Blooms Project, and importantly, resulted in collections of culturally significant species and resulted in knowledge exchange with Anangu Traditional Owners.

The Survive and Thrive bushfire recovery project has been making significant progress on all 12 target species.



Andy Rawlinson and Pam Rooney were presented Life Membership awards.

The ANBG (with partners) continues to work to save one of Australia's rarest trees, the critically endangered Imlay Mallee (*Eucalyptus imlayensis*). Apart from three specimens planted in the Gardens, the Imlay Mallee is restricted to the summit of Mt Imlay, near Eden in NSW, where about 50 trees have been recorded. The whole population was severely burnt by the 2019–20 bushfires.

The Australian National Herbarium has been undertaking a program of creating digital copies of physical specimens. The scanning of the vascular collection was completed in February 2023, and the scanning of the cryptogam collection began in March.

We welcome our new Branch Head Rebecca Pirzl to the ANBG on 30 October. The role will have a broader scope than the previous Executive Director position and will include managing Parks Australia Science Branch along with the ANBG.

Congratulations to new Life Members

At the Friends AGM, Life Membership was conferred on Pam Rooney and Andy Rawlinson for their contributions to the Friends.

Pam was honoured for her service as a Volunteer Guide, as a founding member and contributor to the Friends Photographic Group, and for her significant work as graphic designer with the Fronds team.

Andy was also honoured for his work as a Volunteer Guide, including as a trainer of new Guides; as a member of Friends Council; and for his invaluable support for a range of other Friends activities (notably the Growing Friends) in providing technical solutions to practical needs.

Peter Byron



24th Photographic **Competition for Students**

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

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



Closing date is Friday 30 August 2024.

Cash prizes will be awarded in several categories. Entries will be on display in the Banksia Garden of the ANBG from September-October 2024.

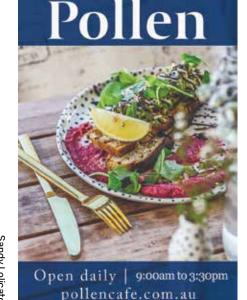
For conditions of entry, further information concerning the Photographic Competition, and winning entries from earlier competitions please see the Friends website at friendsanbg.org.au/ activities_schoolsphotocomp



The Photographic Competition for Students is back.

Winners from the 2019 competition. Left: Primary: Colour 1st prize, House Made of Sticks, Samuel Wagner, Aranda Primary. Centre: Secondary: Monochrome 1st prize, Monochrome Bird, Ky Trotter, Canberra College. Right: Secondary: Altered Reality 1st prize, Dripping Bottle Brush, Amy Lancaster, UCSSC Lake Ginninderra.







The Friends of the ANBG supported the native plants garden at Floriade this year, including some Friends who helped to plant it. This garden received a lot of positive feedback. Top: The completed garden. Bottom: The planting team: Back, L-R: Karen, Leigh Auriac, Sandy Lolicato, Mark. Front, L-R: Linda Beveridge, Sally, Julie Armstrong,

Kneeling: Sandra Simpson.

Friends Briefs (cont.)



During the early weeks of spring Tawny Frogmouths were roosting in a Eucalyptus macrorhyncha in the lower terrace of the northern carpark oblivious of all the activity around them. This Tawny Frogmouth on the nest on the Eucalypt Lawn was a highlight for visitors.

Wake up with the Birds, spring 2023

After a four year lock-down hiatus, Wake up with the Birds was able to resume this year. With many regular leaders not available, it was decided to offer four sessions over two weekends. All four mornings were fully booked with a total of 120 guests attending.

In the weeks leading up to the event, leaders and their helpers spent many hours finding nests and the birds' favourite spots. Many of the leaders are also expert photographers. Our thanks to Pam Rooney and Richard Arculus for these photos.

Andy Rawlinson



The Common Bronzewing Pigeon is often seen alone, feeding on the ground, but the iridescent colours in their plumage really come to life in the right light.



This Grey Fantail was busy with its nest of fine bark woven together with spiders' web. Nests are usually in the shape of a wine glass. The Grey Fantail is a widespread species: the birds are often seen as they gather insects disturbed by the movement of people.

Richard



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

Gardens Shorts





Volunteers Kelli, Kim, Tracy and Liz cleaning scale from the leaves of plants in the greenhouses.

The Tropical Greenhouse Volunteers program

We are celebrating one year since we established our Greenhouse Volunteer Program. Affectionately known as our 'Squishy' Volunteers, the team has an important role in monitoring and manual control (ie squishing) of insect plant pests in our tropical greenhouses. Distinguishing between pest and beneficial insects requires a keen eye for identification. For example, mealybugs look very similar to larvae of native ladybird beetles, which are efficient predators of many pest insects.

We thank our wonderful volunteers for all their work, which has noticeably improved the health and presentation of our tropical plants. Our tropical plant collection includes native species from across northern Australia and into surrounding Pacific regions, including many rare and threatened species. We look forward to showcasing these in the new Ian Potter National Conservatory.

National Seed Bank visits Uluru Kata Tjuta

In late September the National Seed Bank team spent 10 days in Uluru Kata Tjuta National Park collecting seeds and exchanging knowledge with Anangu Traditional Owners.

We made 35 collections of 34 different taxa. These included species of cultural importance to Anangu Traditional Owners, and the first seed collections of Mistletoe recorded in an Australian seed bank. The trip was funded through the Australian Seed Bank Partnership-World Wildlife Fund Rare Blooms Project. Thirteen of the 35 collections will complete our commitment to that project, adding under represented wildflower species to Australia's network of seed banks.

The collaboration with Anangu Traditional Owners was invaluable and enabled us to make several significant conservation collections. We look forward to continuing our work and relationships with Anangu and Parks staff in the future.



Collecting seeds: (left to right) Bush Tomato (*Solanum cleistogamum* or Wiriny-Wirinypa), Bush Plum (*Santalum lanceolatum* or Arnguli), *Sida* sp. and Mistletoe (*Amyema maidenii* or Nyirunypa).

Gardens Shorts (cont.)

A bright future for the Small **Purple Pea**

The Gardens are working with the ACT Government's Office of Conservation Science to rebuild local populations of the endangered Small Purple Pea, Swainsona recta.

In September we delivered over 200 Small Purple Pea plants for re-wilding at crucial sites in the ACT. Over the next few years our nursery will provide a total of 1000 plants. This will be no easy feat: Small Purple Peas are difficult to grow, and our expert Nursery Horticulturists have worked hard to develop effective cultivation techniques. We have also established plants in our Seed Production Area, allowing us to harvest seed without impacting wild populations.

We're excited about this collaboration with the ACT Government, which supports the Gardens' broader mission to help conserve our native flora for future generations.

New faces at the National **Parks Conservation Trust**

The Parks Trust is delighted to introduce two new members of its small but mighty support team.

Dr Kathy Eyles has joined the Parks Trust as its Executive Officer. Kathy has experience across all levels of government in environmental policy and planning. She has worked with a broad range of stakeholders, including community-based organisations, to successfully deliver biodiversity conservation programs and projects.

Ms Cathy Bryson is the new Director, Partnerships and Philanthropy. Cathy is bringing her fundraising and partnership building skills to the Parks Trust from her previous role as Chief Executive Officer at the Melbourne Press Club. Cathy has a strong track record for creating innovative programs and strategies and we know she will be a very energetic advocate for the Trust.

We welcome them both!



Gardens staff helping to plant Small Purple Pea.





Top: Kathy Eyles Bottom: Cathy Bryson

Plant pest surveillance at the ANBG

The ANBG is excited to host new technology for monitoring plant pests and pathogens. In August we worked with scientists from the Australian National University to install a mobile plant pest surveillance unit, called a Sentinel, on the hill above the Eucalypt Lawn. (See image next page.) As part of a pilot program in collaboration with the South Australian Research and Development Institute and Data Effects, this automated air sampling device monitors airborne pests and diseases such as Myrtle Rust.

The Sentinel unit is also being used for education, teaching high school students about biodiversity and biosecurity in collaboration with the ACT Education Directorate.

The unit will remain in place until early 2024.

Safe custody of Native Guava

Although Myrtle Rust (Austropuccinia psidii) affects over 380 plant species in the Myrtaceae family, at least 15 rainforest species are severely impacted and at risk of extinction in the wild.

Native Guava (Rhodomyrtus psidioides) is one of the most severely impacted species. It used to be fairly common in eastern Australia, growing naturally in coastal rainforests from just north of Sydney to Maryborough in Queensland. However, wild populations have declined substantially in recent years, and it is anticipated that 80 percent of plants will be lost to the disease within the next three generations.

Myrtle Rust affects seedlings, new leaf growth on mature plants and flowers, affecting plant viability and reproduction.

In March 2022 to April 2023, the ANBG was involved in a collaborative project, funded by the Australian Government and headed by the Australian Network for Plant Conservation, to create viable ex situ populations of Native Guava in five botanic gardens in ACT, NSW, Queensland and Victoria in an attempt to save the species from extinction.

A genetically diverse sample of plant cuttings have been collected since 2015 when the extent of its decline in the wild was evident. These cuttings were propagated and dispersed by the Australian Botanic Garden Mt Annan to create an insurance population as an 'emergency' measure while plans for long term maintenance of the species can be developed.

During this project, 91 sites were assessed in Queensland, but only 30 sites had living plants, and Myrtle Rust was found in all but one site. Appropriate quarantine facilities and procedures were required to prevent the introduction of the rust from wild samples into propagation facilities in the gardens.





Left: ANBG Horticulturist Bek Hyland monitoring Native Guava and checking fruit production inside seed collection bags. Above: Native Guava (*Rhodomyrtus psidioides*), flowering at the ANBG in 2008.

Now, five botanic gardens on the east coast of Australia have plants that are considered genetically representative of plants in NSW in the wild. A total of 75 plants – 15 per garden – have been planted out in the gardens.

At ANBG, plants are growing in the Rainforest Gully, and although the Gardens have occasionally found Myrtle Rust on 'sentinel' plants (ie plants known to be susceptible which are monitored regularly for signs of infection) none has been found on the Native Guava.

Plants at ANBG have even flowered and produced fruit, a surprising result considering the plants are growing out of their natural range. It is thought that the Canberra climate, being colder and drier than the east coast, is not conducive to sustained Myrtle Rust infection of plants.



Gardens staff have been trained in how to monitor for and identify Myrtle Rust, using an app to record data and results. Training has also included learning a consistent scoring method to record severity of infection across the five gardens growing the plants.

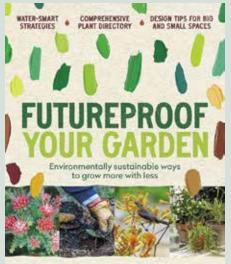
This collaborative project provides a valuable model for conservation of other Myrtle Rust sensitive plant species. More information is available at **anpc.asn.au/safe-custody-fornative-guava**, including two videos on the project, webinar recordings and a flyer for educational use.

In addition to sentinel plants, the ANBG has a new method for monitoring Myrtle Rust, with the recent installation of a mobile plant pest surveillance unit. See *Plant pest surveillance at* ANBG on opposite page for more information or go to **imappests.com.au**

> Zoe Knapp and Sharon Abrahams

ANBG Conservation Manager Zoe Knapp and Associate Professor Benjamin Schwessinger from ANU Research School of Biology with the new AirSampler in the Gardens.

Botanical Bookshop book reviews



ANGUS STEWART & EMMA STEWART

Futureproof Your Garden – Environmentally sustainable ways to grow more with less. 2022

By Angus Stewart and Emma Stewart Softcover, colour photographs and diagrams, 247 pages, \$45.00

This comprehensive book is all about how to use, capture and store water efficiently in times of drought or deluge, and includes recommended plants that are well suited to changing environments and can cope well with too much and too little water.

There is an excellent chapter on futureproofing soils which clearly explains the importance of soil, its composition, and how we can work on soil improvement, and thus help optimise water supply to the plants that we want to grow. Composts, mulches, manures, biochar, and hydrogels are discussed as potential solutions for improving water retention and fertility. Step by step instruction is also provided on how to construct wicking beds, swales and mounds, French drains and storage wells. Water storage is also well covered with a chapter on tank installation, including the benefits and challenges of using greywater and bore water.

Welcome to your essential guide for creating healthy, sustainable, waterwise gardens and landscapes. Packed with colour photographs and helpful advice this is a great resource book for gardeners.

Australia: Country of colour. 2023

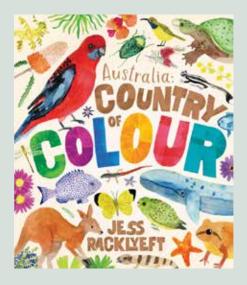
By Jess Racklyeft Hardback, 50 pages, colour illustrations, \$30.00

What a wonderful way to present an educational children's book! Author Jess Racklyeft has used the power of colour to celebrate the stunning plants and animals of Australia, from vibrant pink Flame Peas to startling blue Fairy Wrens, from the dotty blue and purple of the Purple Rock Cod to the striking yellow and black of the Southern Corroboree Frog.

Each main colour palette is first introduced throughout the book using a special landscape/place. For example, the colour blue is introduced using the Great Barrier Reef, while brown/orange is introduced through Purnululu National Park. These places are then described, as are the ways that colour features in the landscape. The author also introduces facts about the use of each colour in art, as well as information about pigments and how different colours can affect our emotions.

Each of the different colour palettes is then illustrated with lots of beautifully hand painted examples of creatures and plants, including scientific names plus a short description. These descriptions are short and sweet and super interesting!

Take a closer look at nature's paintbox and discover the amazing range of animals and plants that live in Australia with this gorgeous, colourful book.



What's on at the Gardens

December 2023 to April 2024

Details are correct at the time of printing. Please check the Friends website **friendsanbg.org.au** or the ANBG website **anbg.gov.au** for changes and updates.

Storytime in the Gardens

First Friday of the month 10.00 – 11.00 am \$5 per child, adults and infants under 12-months free Crosbie Morrison Lawn Book on ANBG website

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

Removing Woody Weeds from Black Mountain and/or within ANBG

Saturday 5 January, 3 February, 2 March and 6 April 8.30 am to 11.30 am

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

Please email your name and phone number to **friendsofblackmountain@ gmail.com** or phone Linda on 0437 298 711 so there is enough delicious morning tea.

Guided Walks

11.00 am and 2.00 pm daily Free*

Get the most out of your visit on a guided walk. Every walk is different, as Volunteer Guides share stories about the fascinating array of Australian plants on display.

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

Flora Explorer Bus Tours

Saturday, Sunday and Public Holidays 11.30 am and 1.30 pm \$8 adult, \$5 child and concessions Book on ANBG website

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

Book a Private Tour

Costs apply

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

Sunset Cinema

Until 24 February Wednesday to Saturday nights (except Christmas and New Years Day) Eucalypt Lawn Book online (see below)

Canberra's favourite outdoor cinema returns for another season of movies under the stars. With their signature mix of new releases, family favourites and timeless classics, enjoy this summer's best movies along with delicious food, beverages and popcorn. Visit **sunsetcinema.com.au/canberra**

Lucky Jim Performance and Musical Mushroom Sculpture

6-12 January Crosbie Morrison Lawn \$5 per child, infants under 12-months free

Join Lucky Jim for a musical performance and interactive musical mushroom sculpture on the Crosbie Morrison Lawn followed by face painting for the children.

Snakes Alive

8-14 January 10.00 am, 12.00 pm and 2.00 pm daily Adults \$9, concession \$8 and children \$7 Book on ANBG website

The ACT Herpetological Association is bringing the *Snakes Alive* exhibition back to the Gardens over the school holidays. The event includes a highquality display of living Australian reptiles and amphibian species to inspire interest and awareness of Australian native fauna.



Join the Friends of Black Mountain to remove woody weeds.

What's on at the Gardens (cont.)

Volunteer Guide information sessions

!8 January, online at 10.30 am 24 January, ANBG Theatrette at 5.00 pm

Information sessions about becoming a Volunteer Guide will be held online or face-to-face at the above times. See advert on page 13 or email **volunteer@anbg.gov.au** for further information.

Bonsai Exhibition

24–25 February Crosbie Morrison Amphitheatre Adults \$5, concession \$3 and accompanied children under 12 free

Book on ANBG website

The theme for the 2024 Bonsai exhibition is The Australian landscape in the palm of your hand. The exhibition will include over 30 bonsai of Australian native plants with a fusion of traditional display features and uniquely Australian influences and includes public demonstrations at 11.00 am and 2.00 pm.

Growing Friends Autumn 2024 Native Plant Sale

Saturday 2 March 9.00 – 11.30 am (unless sold out earlier) Banksia Centre Carpark

There will be hundreds of plants to choose from: grasses, groundcovers, small and large shrubs. Plant lovers will be able to find just the right plant at only \$6 a pot.

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

All proceeds go to the Friends to support the Gardens. Sales by card only.

Exhibitions

Visitor Centre Gallery Open Daily 9.30 am – 4.30 pm Free

23 November – 10 December

Illuminate 2023

The exhibition includes plant portraits, close-up shots of flowers, birds and insects, intimate landscapes within the ANBG and fauna from our local region.

13 December – 25 February

Transformations: Art of the Scott Sisters

Transformations: Art of the Scott Sisters brings to life the work of Harriet and Helena Scott.

13 December – 25 February

Gardening Gloves

An exhibition by local artist Sharon Peoples featuring sophisticated individual embroidered gloves using moths and butterflies found in the Canberra hills.

1 March - 2 April

Explore and experience native bees

Discover some of the native bees found in the ANBG and their associated plants with artist Cheryl Hodges. The artworks are conversation starters, leaving viewers with a new wonder and curiosity about nature.

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**

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.



Fronds 105 December 2023 25

Thursday Talks

February to April 2024

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

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

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

February

1 February

Special speaker TBA

See further details on the Friends of ANBG website.

8 February

Bradley Desmond The Rare Bloom Project: A partnership approach to conserving Australian wildflowers

Bradley, from Australian Seed Bank Partnerships, will discuss the ongoing need for ex situ plant conservation in Australia, and the country-wide accomplishments of the Rare Bloom Project.

15 February

Dr Peter Caley On estimating waterbird abundance and trends across eastern Australia

Peter's talk will illustrate some of the inferential challenges associated with estimating the number of waterbirds in eastern Australia.



Pelicans at Coopers Creek.

22 February

Dr Linda Broome Emergency feeding of Mountain Pygmy Possums after the Black Summer fires

In this talk, Linda will outline the rapid response measures the Saving Our Species Team, NPWS, Zoos Victoria, colleagues, friends, volunteers and local school children took to sustain the possums after the fire for the next two years, the results of those efforts and the current status of the possum under the continuing threat of global heating.



Above: The waterers and feeders for Mountain Pygmy Possums. Below: Mountain Pygmy Possum at the Snow Ridge Road.



Thursday Talks (cont.)

29 February

Distinguished Professor Sue O'Connor Art in the bark: The Indigenous carved boab trees of north-west Australia

Sue, from ANU, will discuss traditional Indigenous uses of the Australian boab (*Adansonia gregorii*), a remarkable tree found only in north-west Australia, and outline results of fieldwork to locate and record rare boab trees bearing Indigenous carvings.

March

7 March

Dr Chris Cargill Extremophiles: Bryophyte discoveries in south-west Western Australia and Central Australia

Come and hear Chris, from the Australian National Herbarium, talk about these fascinating plants and to see images of the breath-taking landscapes of these regions and some of the beautiful flowering plants that grow with them.





Top: The liverwort *Petalophyllum preissii* (Thallose Liverwort) collected during the field trip.

Above: Chris Cargill collecting at Lake King.



Sue O'Connor at field site.

14 March

Sharon Field 3000 days ... and counting: A botanical artist's response to climate change

You will be given a unique opportunity to examine first hand Sharon's original oversized work – a 15 metre, handpainted, still evolving scroll. What is the message behind this work called 3000 days ... and counting ...?



21 March

Toby Golson Collaboration for conservation: *Macadamia jansenii* at the ANBG

Toby, of ANBG, will provide an introduction to the species, his involvement in ex situ conservation initiatives, and an overview of his BGANZ-funded trip to visit the species in the wild in 2022. Following on will be a guided tour to look at the ex situ conservation planting of *M. jansenii* in the Rainforest Gully

28 March

Tom North Seed banking and National Parks, an ideal conservation partnership

Tom, Curator at the National Seed Bank, will cover recent examples of where the National Seed Bank has developed best practice protocols for the conservation of threatened plant species across Commonwealth National Parks.

Below left: Viewing Sharon Field's scroll at the American Society of Botanical Artists conference, New York. Below right: Details of fruit and flowers from the scroll.





Collecting Hibiscus brennanii seed in Kakadu National Park.

April

4 April Andrew Skeoch Deep listening to nature

Andrew, of Listening Earth, will guide us into hearing the languages of nature; developing our auditory awareness, identifying species by ear, recognising behaviours and repertoire, and finding empathy with the voices of other beings. We'll hear the environment around us in a new way.

Andrew will be happy to sign copies of his new book.

11 April Cormac Farrell City living for pollinators

Join urban beekeeper and environmental scientist Cormac Farrell on a journey covering food, urban gardens and the return of bees to Parliament House.

Have you been to a Thursday Talk lately?

If not, your'e missing out on some great talks that are interesting, entertaining and informative.

They're held every Thursday from February to the end of November at 12.30 pm in the Gardens Theatrette.

More information about all talks and the speakers is on the Friends website.

Looking forward to seeing you in February.

Thursday Talks Team

18 April

See details on the Friends of ANBG website.

25 April

See details on the Friends of ANBG website.



Over the last thirty years, Andrew Skeoch has documented the sounds of wild environments around the planet.



Book

Botanic Gardens

Helping The Gardens Grow