

*Fron*ds

30 years

Friends of the Australian National Botanic Gardens
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Fronds welcomes your articles and photographs.

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Cornelia Buchen-Osmond:
Isopogon anemonifolius,
Legacy of Banks and Solander
Exhibition,

Visitor Centre, September – October
(see P 27)

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Cover photo by Howard Rawson, 7 April 2020. Recovering treeferns at his property Wombalano on the Bombala River after fire on 23 January 2020. More fire and recovery photos at <https://www.flickr.com/photos/6277888@NOO/>

Why Friends matter

This year marks the 30th anniversary of Friends of the ANBG. It is a good time to reflect on the value we bring. Certainly Federal government is the principal supporter of the Gardens but the Friends, through both activities and fund raising, gives richness to the experience of visitors, breadth of reach to the work of the staff and, through multiple projects, a legacy aimed at understanding and protecting Australian flora for the future.

The Friends and the Public Fund have spent almost a quarter of a million dollars (\$236,633) this past financial year - a truly magnificent effort! Though you might fear that between bushfire smoke, hail and Coronavirus nothing much was happening, let me recount some highlights of the investments made on your behalf.

A new garden: the Banksia Garden will be a revelation. With over 70 taxa of the genus *Banksia*, this will be a truly national collection covering species from the colder south-west of the country to Kakadu (the tropical *Banksia dentata*, though in mobile containers to allow frost protection in winter). The collection focuses on the *spinulosa* species of *Banksia*, which includes the endangered and sort of 'local' *B. vincentia*. The planting of WA species is being held off until the frosts are over in spring. The Gardens' Head of Living Collections, David Taylor, describes it as a mixture of 'extreme horticulture' for 'plants with special needs'. Artistic signage and interpretation is being supported by the Friends, and a working group, which includes Friends, has prepared guided walks to be available when the garden opens.

Communication: A video wall has been installed outside the theatrette to screen general information for visitors plus short specialised communications like that about pollinators currently screening. Inside the theatrette we now have a first class 'hearing loop' system that is much appreciated by Friends including me! An International Seed Conference was planned for this year and though postponed because of COVID-19, the keynote speaker, a leader in this field from Kew Gardens, was funded by the Friends and she was able to visit and hold discussions with a number of Australian scientists working in this field.

Research: On Norfolk Island Leah Dann is undertaking important research on native flora, assisted in her PhD studies by Friends' funds. Another major research program is studying thermal tolerance of plants which will support real world studies of the future of flora during climate change. This project, in which the Gardens' Dr Lydia Guja is a researcher, also involves Government agencies from NSW and universities including ANU where Professor Adrienne Nicotra leads a lab focussing on this issue. Funding from Friends extends over three years.

Training: Young scholars in botany and allied fields benefit from the Summer Intern program. The Friends assists each year with a 'reward' for their work - a gift of books from the Bookshop.

Visitor experiences: Guiding, artistic and photographic exhibits, and plant sales all add to the visitor experience. Summer Sounds, for which Friends plays a role in staffing and funding, each year brings new, noticeably younger, audiences to experience the joys of the Gardens.

Little things that count: Support to our own membership facilitates our Photographic and Botanic Arts groups, Growing Friends, Guide uniforms, a contribution to the 30th Anniversary history, participation in national bodies like the Australian Association of Friends of Botanic Gardens and national Guides Conferences.

Then there are future commitments: The 'biggie' here will be the Conservatory with ground breaking planned for this later in the year. The Friends have a commitment to support a major interpretation program for this unique building and collection.

So funds raised either through your membership, through the activities of our many Special Interest Groups and through tax deductible donations to the Public Fund, are all channelled into these Projects. Because your Council, and the Special Interest Groups all work voluntarily there are negligible overheads, meaning virtually all of the funds are put to work.

We appreciate and always welcome your support in any way possible ranging from simply renewing your membership, to volunteering on Council or in any of our specialist groups, but especially in supporting our fund raising efforts.

Max Bourke AM, President, Friends.



The seamless link between the tree house and Banksia Garden has taken shape with a newly planted *Banksia serrata* forest

George Caley and Daniel Moowattin: a partnership of naturalists

Boronia Halstead

In the last edition of *Fronde*, we were briefly introduced to the plant collector George Caley, who was in New South Wales in the first decade of the 19th century. Caley was one of the collectors supported by Joseph Banks to find plants around the globe, for inclusion in the collections at Kew and his own herbarium in Soho, London, as part of the Imperial mission. Unlike Banks – a ‘gentleman naturalist’, Caley was an ‘artisan botanist’ – a working-class autodidact. He was part of a movement in northwest England in which botany was a communal pursuit. Members ranged far and wide on foot, building local plant collections and botanical libraries. Similar groups pursued other areas of natural history, including entomology, ornithology and geology. Caley’s life as a naturalist is documented in Joan Webb’s 1995 biography of George Caley a key source for this article.¹

George Caley’s origins were humble, and his achievements all the more remarkable for that. The son of a Manchester small farmer and horse dealer, Caley came into the world on the very same day that on the other side of the planet, HMB *Endeavour* struck a reef at what has since been named Endeavour River. On board, Joseph Banks was desperately trying to decide what he would salvage from the collections he was taking back to Kew, should the ship have to be abandoned.

Caley had only four years of formal education where he learned some Latin. He became a farrier on completion of his early education. His botanical interest arose through learning about the herbal remedies used to treat horses. Having noted ‘the quackery and ignorance’ of local farriers, he made it his business to learn more about horse anatomy and local plants.

He furthered his botanical knowledge through the Sunday meetings of artisan or weaver botanists in local public houses. The meetings evolved into Botanical Societies, to which specimens were brought for identification, to contribute to herbaria housed in the pub. Membership fees provided funds for reference libraries, also kept at the pub. The members relied on oral traditions to pass on knowledge, since some were not literate, ‘so that the knowledge of one became the

knowledge of all’.² Some societies had fines for swearing, or pinching or not contributing specimens, or arriving intoxicated. Members could be required to pay ‘wet rent’ by drinking enough to satisfy the publican. After the serious business was completed, the assembled company might remain for an evening of drinking and singing.

Caley became associated with the Middleton School of Botany, and some years later thanked them ‘that my small genius was awaked’ therein.³ Caley had a strong conviction about his own capabilities, but did not have the means to purchase books or equipment to further his knowledge as much as he wished. His unquenchable appetite for botanical knowledge was guided by his correspondence with Dr William Withering, a British botanist of the time. Having exhausted fresh discoveries of plants in his area, Caley entertained the idea of becoming a Botanical Traveller, seeking plants abroad.

Caley petitioned Joseph Banks to support his quest. Initially doubtful about Caley’s suitability for such a mission, Banks arranged for Caley to work at Kew Gardens as a gardener to acquaint himself with the Australian plants in the collection. Caley found that the hours of work there prevented him from cultivating his mind ‘according to its natural inclination’, and went home to Manchester after two months.⁴ He continued to plead with Banks to be considered to go to Botany Bay and Banks finally sent him there in November 1799, having arranged for Caley to have free passage on the convict ship, the *Speedy*, and to receive the customary ration from the public store and accommodation. Banks paid him a salary of fifteen shillings a week from his own pocket. Thus began an association between Banks and Caley that would endure for twenty-five years.

2 Secord, A. 1994, ‘Science in the pub: artisan botanists in early nineteenth century Lancashire’, *History of Science*, 32, p 269-315. <http://adsabs.harvard.edu/full/1994HisSc..32..269S>

3 Webb, Joan 1995.

4 Letter Caley to Dr William Withering 15 June 1798, cited in Webb, J. 1995 p 9.



Thiele, K. © ANBG, APII

Banksia caleyi, January 1989, Fitzgerald River, WA

1 Webb, Joan 1995, *George Caley: nineteenth century naturalist: a biography*, Surrey Beatty and Sons pub.

Before leaving, Caley asked Banks to provide him with a watch and a pocket sextant, because he intended to 'travel farther into the woods ... than what others have yet done', so that he would know what time to return from his explorations and not get lost.⁵ The *Speedy* sailed to Sydney via the Cape of Good Hope where Caley went ashore to collect plants over a ten day period, finding it such 'a noble field' that he was late returning to his ship and delayed its departure, much to the displeasure of Governor Philip Gidley King, who was also on board.

After his arrival in Sydney in April 1800, Caley worked in the new botanic gardens at Parramatta, which was used to naturalise useful plants sent to the colony from around the world, and maintain plants in readiness for being sent to Kew Gardens. While in this position, his general disgruntlement grew, and he complained to Banks that 'I did not meet with that encouragement I thought myself entitled to' or 'that assistance and liberality, which I conceive my ardor merited'.⁶ For all that, his letters to Banks show he was a shrewd and frank observer of a wide range of matters over the eight years he spent in the colony, refusing to be influenced by the expectations of some about his 'proper place' in society. He had written earlier in 1798: 'What few talents I am possessed of are not to be known by seeing me upon a carpet, under the roof of a conservatory, nor upon a fine gravel walk in a garden. Let me be tried upon the lofty mountain, the dark and intricate wood, the wide-extended plain, the marsh and peaty bog.'⁷

Caley resolved to try to rectify the chaos that he perceived in some English conservatories, by making 'as many botanical descriptions and other remarks as in my power towards laying the foundation of a Natural History of New South Wales'.⁸ He had an instinct for the peculiarities of whatever met his eye. He collected thousands of specimens of plants, enriching the collections in Banks' herbarium and Robert Brown's own collection, as well as providing seed for the gardens at Kew. He was the first to recognise hybridisation in the Eucalypt genus and his contribution was recognised by Joseph Maiden in the naming of the New England ironbark, *Eucalyptus caleyi*. He also made a study of animal life and collected many skins of birds, earning a reputation as a 'bird stuffer'.

Caley was in Port Jackson at the time of Robert Brown's visit in 1802, and accompanied him on a number of collecting expeditions. Brown noted Caley's diligence and keen powers of observation, describing him as a 'skilful and accurate botanist'. Brown used Caley's material to describe 14 species of Proteaceae. Robert Brown commemorated Caley's contribution to botany in the names of *Banksia caleyi*, a genus of orchids *Caleana*, and the now rare *Grevillea caleyi*.

Caley quickly recognised the value and depth of Aboriginal knowledge of plants. After arrival in Port Jackson, Caley wrote to Banks that he had 'always given ear to what the Natives had to say, and thought I was possessed of all they knew, as what might be deemed useful ...'. He noted that they

5 Letter Caley to Banks, 9 February 1799, *Banks Papers*, cited in Webb, J. p 11.

6 Letter Caley to Banks, <https://transcripts.sl.nsw.gov.au/page/letter-received-banks-george-caley-7-october-1807-series-18069-no-0002>.

7 Letter Caley to Banks, 22nd July 1798, cited in Webb, J. p 14.

8 Letter Caley to Banks, 12 June 1800, cited in Webb, J 1995, p 26.



In this partial herbarium record, Caley cites the Aboriginal name *Burragro* as a hybrid between *Barilgora* (*Eucalyptus hemiphloia* F.v.M) and *Derrobary* for *E. siderophloia* Benth, indicating the detailed botanical knowledge of Aboriginal people from whom Caley gained his knowledge.

‘can trace anything so well in the woods, and can climb trees with such ease, whereby they will be useful to me and [I] shall gain a better knowledge of them.’⁹

Daniel Moowattin was one of the Aboriginal people who assisted George Caley. From around five years of age, he was reared in the family of Richard Partridge, a pardoned convict who became a left-handed flogger, constable and pound keeper. He was given the name ‘Daniel’ by Partridge. Moowattin became Caley’s close companion, interpreter and collector of plant and animal specimens in the Colony. Moowattin’s fluency in inland Aboriginal languages assisted Caley in his encounters with local people on his explorations. Caley valued his willingness to venture beyond his known environment, noting that other Aboriginal people were not prepared to do so. Moowattin accompanied Caley on his voyage to Van Dieman’s Land and Norfolk Island.

9 Letter Caley to Banks, 25 August 1801, cited in Smith, K. V. 2010, *Mari Nawi, Aboriginal Oddyseys*, Rosenberg Publishing.



AP11, Booker & Kleinig, a 15913, © ANBG

Caley was the first to recognise hybridisation in the eucalypt genus. His contribution was recognised by Joseph Maiden in the naming of the New England ironbark, *Eucalyptus caleyi*.

The Dharug-speaking Moowattin should be acknowledged as a collector in his own right, starting to work with Caley at the age of 14. He climbed trees to source the blossoms and fruits of eucalypts for Caley. Some of the plants attributed to collection by Caley and held in the National Herbarium at the Royal Botanic Gardens of New South Wales are labelled ‘Got by Dan’. Many of Caley’s labels record local Aboriginal words for plants and he also wrote about the features used by Aboriginal people to distinguish plants. Some have drily observed that we know more of the Aboriginal names of eucalypts as a legacy of the contribution of Moowattin than we do of the names of his Aboriginal countrymen of the day: ‘*Eucalyptus saligna* (Blue Gum) was called *Calang’ora*, the blackbutt [*Eucalyptus pilularis*] the *Tarunde’a*, the *Angophora floribunda* the *Nandan’ora* and more than two dozen trees in similar ilk.’¹⁰

Moowattin was not the only Aboriginal assistant to Caley, but it is likely that he contributed to Caley’s knowledge about the Aboriginal use of Banksias. In a letter received by Banks on 7 October 1802, from Caley, he reported:

There are distant hopes of some pieces of Banksia affording a useful beverage. Though I knew the Natives suck the honey juice of them, yet till I went to the Cataract, I was totally ignorant of them collecting the heads of flowers, and steeping them in water, and afterwards drinking it as I well knew the Natives preferred sweetness in a greater degree than Europeans, it immediately occurred to my mind, that this liquor on being fermented would become an agreeable beverage. I mean to try the experiment on the B. serrata when it comes in flower, which will be about Christmas. The one which the Natives had been using was the B. spinulosa. They call

*it Tng’gra, or rather Tng’era. Dr Smith has erroneously called it Wattangre; but this I think is a corruption of Wattangarry, the Native name of B. serrata. I have heard that different tribes assemble frequently where Tng’era is abundant, purposely to drink it, which may be truly called a native feast.*¹¹

In 1809 Banks terminated Caley’s appointment and he returned to England the following year with his large collection, having been offered an annual pension of fifty pounds for life, by Banks. Moowattin accompanied him and was the third Aboriginal person known to have made this long journey. After Bennelong’s earlier visit, King George III had ‘expressed his desire that not another native should be brought home from New South Wales’, and Moowattin had to stay on board the ship at Woolwich for many weeks in the winter cold after it docked, before being given permission to go ashore. Banks provided support for Moowattin while in England, and ensured he had clothes, ‘the very pink of fashion’. Caley took him to visit Robert Brown and Joseph Banks, and it is possible that he met Matthew Flinders. He visited various museums while in London. Caley took his pet cockatoo, ‘Jack’, with him to England. Jack accompanied them on some of these excursions, caged in a hamper ‘which he pecked all to pieces’. Jack outlived Caley and was provided for in his will.¹²

Moowattin soon became homesick and his relationship with Caley was sometimes strained. Banks arranged for Moowattin to be given passage back to Australia on a convict ship and he left England in the company of the gardener George Suttor in November 1811, arriving in New South Wales via Rio de Janeiro two years after leaving his home.

11 <https://transcripts.sl.nsw.gov.au/page/letter-received-banks-george-caley-7-october-1807-series-18069-no-0002>

12 Clarke, P. A 2008, *Aboriginal Plant Collectors: Botanists and Australian Aboriginal People in the nineteenth century*, Rosenberg Publishing.

10 <https://www.bchg.org.au/index.php/en/people/individuals/l-r/139-moowattin>

Pleased to be home, Moowattin quickly disposed of his fine clothes and returned to his countrymen. Tragically, some few years later, he was tried for the robbery and rape of the daughter of a settler, and sentenced to death at the age of 25. Moowattin pleaded guilty to the robbery but denied the rape charge. He was the first Aboriginal person to be officially hanged in Australia.

In his quest to find new plants and other specimens with the help of Aboriginal guides, Caley made his mark as an explorer. His ambition to find a way over the Blue Mountains came close to fulfillment, when he fought his way through 'the Devil's Wilderness' to what he named Mount Banks. He carefully documented these journeys in maps and notes. His collecting voyages by sea took him to Jervis Bay, Norfolk Island, Van Dieman's Land, Bass Strait and Western Port, and to the Hunter River.

Until recent decades, Caley's full contribution to botany was overlooked, and some of his specimens remained in bundles until the 1970s before being mounted. He is remembered in the names of some Australian plants: *Viola caleana* is named after him. It is a swamp violet found in southeastern Australia including in the ACT. *Banksia caleyi* has the common name of Caley's Banksia, and is one of the pendulous banksias found in southwest WA. Some mature specimens can be found in the ANBG, and young plants are included in the Banksia Garden. Alex George declared a specimen of *Banksia spinulosa* var *collina* collected by Caley at Newcastle to be the lectotype for the taxon. (Lectotype – a single specimen selected from a group of syntypes and designated as the name-bearing type some time after the original description was published - Ed). Seven other species previously named after Caley no longer have *caleyi* in their name.¹³

George Caley died in Bayswater, England in 1829 at the age of 59. Caley's broader legacy has been to provide the raw

materials that others, such as Robert Brown, used in publications. His letters and notes are full of observations on living conditions, the operation of the criminal justice system, local politics and race relations, and continue to inform research on early Australia. His explorations in the Blue Mountains are part of the inspiration for The Botanists Way from Richmond to Lithgow, along the Bells Line of Roads. Most of the place names Caley included in his maps have not survived, but his memory has been revived in recent times, for example in the names of George Caley Place in Vincentia, commemorating his visit to Jervis Bay in 1801, and another at Mount Annan. The partnership between Moowattin and Caley was strong and fruitful, not just in the field of botany. Moowattin's full contribution to our

understanding of Aboriginal knowledge accumulated over many thousands of years is invaluable and likely not fully understood. While Caley and others have documented the names of many species in Aboriginal languages, these names or the Aboriginal people who shared them are still rarely used in scientific names: only three bird species have names from Aboriginal languages, for example.¹⁴ Now, that could be a challenge for the future!

14 Nash, David. 2016. 'In the margins of some Australian dictionaries: exploring the etymology of berigora', in Peter K. Austin, Harold Koch and Jane Simpson (eds.) *Language, Land and Song*, 263-274. London: EL Publishing <http://www.elpublishing.org/docs/6/01/LLS-Chapter-18-Nash.pdf>



Alex George declared a specimen of *Banksia spinulosa* var *collina* collected by Caley at Newcastle to be the lectotype for the taxon.

13 Webb, Joan 1995.

*The birth of the Friends of the ANBG and its sequel*¹

Don Beer, historian and volunteer ANBG guide

The Friends of the ANBG came into formal existence in October 1990. Its foundations were laid well before then - in the transformation of Australian society that followed the second world war. For decades Australians enjoyed the growing prosperity, better health, improved education, and increased longevity that gave them the leisure and the vigour to look for interesting, public-spirited activities. In the 1980s it was estimated that 30 per cent of adult citizens engaged in volunteering. Three per cent of the volunteers worked in museums, botanic gardens and other cultural institutions. The interest in botanic gardens also reflected the nation's growing environmental awareness.

Public engagement could take many forms, not all of them benign as far as the institutions were concerned. Again, the creation of public support groups for institutions was a growing movement. Experience was deemed to demonstrate that to be successful, attempts in this direction required a leading public figure, an 'identity', who was committed to the new organisation and would attract support to it. Alternatively an enthusiastic group might perform a similar function. In the late 1970s to the mid 1980s the ANBG lacked these requirements and to this lack was ascribed the failure of early efforts to form a Friends organisation.

In 1987 a renewed push began. The Gardens entered into discussion with the ACT branch of the Society for Growing Australian Plants (SGAP) to assess the degree of support for a Friends organisation. The result was encouraging. There were concerns, among them the desire to avoid creating a Friends body that would be merely an offshoot of a larger outside group. The dangers involved in this arrangement became apparent when expectations of the new body were discussed: the SGAP

members wanted, among other things, joint field trips where they would pay their own way and perhaps that of staff and they wanted access to propagation material not available on the open market. These suggestions were alarmingly close to the sort of scheme that had led in the late 1970s to an embarrassing confrontation between the Gardens and the Australian Workers Union. For its part the Gardens offered only such relatively safe proposals as exhibition previews, speakers, discounts on publications and financial support to get the organisation going. Despite the difference in perspective, a meeting was planned for 2 February 1988 to form a steering committee to draft a constitution and to arrange a public meeting later that month. Unfortunately Robert Boden, Director of the ANBG, fell ill. He was suffering from clinical depression brought on partly by the failure of his larger schemes for the Gardens' development, and he asked that both meetings be postponed till he could attend. He was off work for some months.² Progress came to a standstill for a year or more.

By 1990 circumstances had changed significantly. There is some evidence to suggest that the National Capital Development Commission's proposal to construct a multi-lane highway between the ANBG and CSIRO, the John Dedman Parkway, made more apparent than ever the Gardens' need for community support. Devastating cuts to staff and funding in 1988-90 and the damage wrought by almost constant administrative reorganisation, real or foreshadowed, seem to have had a similar effect. At any rate the new Director, Dr Roger Hnatiuk, considered formation of a Friends group a priority and he had the support of the Minister, Senator Graham Richardson, who declared in October 1989 that the project would be 'a particular focus for effort by the ANBG in the immediate future'.³



Anne Joyce, 1998

By that time Hnatiuk had broached the issue with Murray Fagg, then the Assistant Director, Visitor Services. Fagg had the advantage of a long membership of the Museums Association and was well aware of the immense amount of staff time required to make the project succeed. He insisted on an extra staff member for the task. The position of Public Relations Officer, the first in the history of the Gardens, was created. The Gardens appointed the dynamic Anne Joyce to it.

English born and educated, Anne Joyce had considerable experience in public relations, guiding and volunteer training. She took up the position of Public Relations Officer in May 1990 and worked tirelessly to ensure that the Friends project prospered. Fortunately, Rod Harvey, an ANBG staff-member then employed as Information Officer, had been keeping a register in the Visitor Centre (VC) of the names of those who might be interested in supporting the Gardens through a Friends organisation and he had a list of perhaps three hundred potential members. He was also sending out a double-sided A4 sheet advising those on the list of progress towards the formal creation of the Friends of the ANBG. So the main task then was to organise, to plan, so

that when a public meeting took place, it would actually lead to the formation of a Friends body.

A series of six steering committee meetings was held between the end of June and the end of August. Anne Joyce managed to get a powerful list of participants. Perhaps the most outstanding was Dr Geraldine Gentle, who became the first President of the Friends. Gentle was at that time a leading public servant with interests in natural resources and environmental management. Unsurprisingly the steering committee meetings were highly productive – creative, imaginative, full of ideas. A number of the crucial but mundane issues were resolved: the aim of the Friends, which was defined simply as being to support the ANBG; charging for membership; the draft constitution; and so on. It was during this process, on 28 August 1990, before the Friends had even been formed, that the *Canberra Times* declared it to be 'already a force to be admired'.⁴

In this process Dr Roger Hnatiuk was much involved. As a general principle he was keen to get the public more engaged with the Gardens. As to the Friends in particular he took the view that the organisation should be treated as a long-term commitment: he wanted to progress slowly but surely, putting enough resources into the task to ensure success. He tried not to push the new body into fund-raising too quickly for its own or the Gardens' good. Nor did he stress at this point the importance of the Gardens having ultimate control over the way the Friends spent its funds within the Gardens. This had been a concern earlier. Perhaps by 1990 it was assumed and accepted. Certainly the draft constitution gave Gardens management the right of veto over Friends' projects. But at the time the matter of fund-raising and spending was decently cloaked in brevity and generalities.

The upshot of the steering committee meetings was a public meeting on 2 September 1990. On that date, to the excitement of the organisers, about a hundred people attended; the office-holders and Council of the Friends of the ANBG were elected. Professor Lindsay Pryor formally launched the organisation at a ceremony held on the Eucalypt Lawn on 14 October 1990 during Biota '90, a combined ANBG and CSIRO series of open days. It was almost exactly twenty years after the official opening of the Gardens.

The sequel: activities and achievements of the Friends

Thirty years on it may be appropriate to reflect on the achievements of the body thus created.

The first duty of an organisation like the Friends is to survive. The Friends have done much more than this. They have flourished – and it has not been by accident. With people like Anne Joyce (till 2002), Dr Gerry Gentle, and stalwarts like Beverley Fisher, Joyce England, Barbara Daly, Arthur Court, David Young, Alan Munns, David Coutts, Barbara Scott, Barbara Podger, Warwick

and Pat Wright, Doreen Wilson and many others, the Friends have been a well run and vibrant group.

The first three years or so were critical. In that time the constitution was ratified, incorporation was achieved, a lively program of talks, walks, visits behind the scenes at the Gardens, and excursions was begun together with occasional but highly successful events like the Spring Fling festival. The first logo was introduced. In 1993 the newsletter, then edited by James Andrew, reached what Anne Joyce considered 'world standard'. It has gone from strength to strength ever since, as readers of *Fronde* will attest. The first of the special interest groups, the Growing Friends and the Volunteer Guides, were introduced. The path to financial independence was laid down with membership fees and plant sales providing the main sources of income.

On these solid foundations much has been built. Membership, 385 in 1991, now exceeds 2500 individuals. Special interest groups have multiplied. Spring Fling morphed into the Summer Concerts and became for long the Friends' main fundraiser. The



Launch of the Friends' organisation at Biota '90 by Lindsay Pryor, Eucalypt Lawn, 14 October 1990.

R. HOTCHKISS © ANBG, 1990.

The birth of the Friends of the ANBG and its sequel (contd.)

Public Fund was set up to encourage tax deductible donations. A Schools Photographic Competition has been run very successfully over many years. The organisation continues to evolve.

One of the aims of these activities was to educate and inspire. Anne Joyce was committed to ensuring that membership of the Friends should involve lots of fun. Yet they also contributed to the primary aim of the Friends, which was to support the Gardens. The Friends have proven to be the successful front line of the institution's contact with the public, spreading attitudes to and knowledge of it through drawing people to events like the concerts, plant sales, and guided walks, reaching out to them by talks and stalls at clubs, societies, shopping centres, Floriade and the like, and spreading the word informally in personal conversation.

Support has come in other forms. The Friends' total financial contribution to the Gardens has now passed the \$1.6 million mark. All around the main site are reminders of the Friends' donations: the Queensland Bottle Tree near the

main entrance, the Cascades alongside the Visitor Centre, the Sundial and the shelter on the Rock Garden lawn, the electric people-mover Flora Explorer, the Treehouse and many more. In addition the Friends' in-kind contributions in the form of labour have been substantial; they have allowed the Gardens to do things that would not otherwise have been possible.

The Friends have also contributed their voice to the Gardens' discussion of policy. They have, for example, made submissions on the various Plans of Management prepared since their formation. Their most important contribution of all to the Gardens, however, was made on an occasion now largely unspoken of and perhaps forgotten by most: the existential crisis the Gardens faced in 2007-09. Without the public agitation then mounted the ANBG would have ceased to exist as we know it, perhaps ceased to exist at all. In that agitation the Friends, along with the Australian Native Plant Society, played a crucial part.

Endnotes

1. This article is a revised and abbreviated version of a chapter in Don Beer's forthcoming history of the ANBG, *Miracle on Black Mountain*. I gratefully acknowledge the assistance of Anne Joyce, Barbara Scott, Dr Geraldine Gentle, Catherine Jordan, Alan Munns, and David Coutts in the research for that chapter and hence this article.
2. Interview with Dr Susan Boden, Robert Boden's daughter, on 2 October 2014 (Notes in possession of the author).
3. NLA, Lindsay Pryor Papers, Acc. 01.033, Box1B/3, Senator G. Richardson to Professor D.P. Craig, 30 October 1989. Richardson was responding to pressure from the Chairman of the ANBG Advisory Committee on this point.
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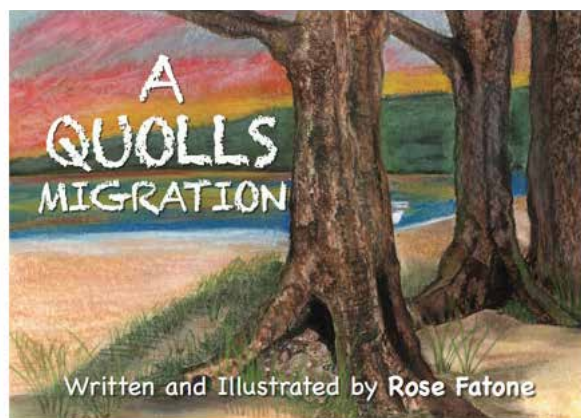
Friends Cascades



A QUOLLS MIGRATION

2018, Rose Fatone, Soft cover, 36 pages, Colour drawings, \$19.95

This beautifully illustrated story is about a family of endangered Spotted-tailed Quolls living deep in bushland on the NSW coast. The story highlights the threats to their survival, as they are forced to move due to a new housing estate that has recently been built close to their home. The quoll family get help from a Powerful Owl and a Spur Winged Plover to escape from the



dangers of heavy machinery cutting down the trees, and the perils of crossing major highways and roads. Finally, they can see the safety of hills and bushland in the distance and they manage to hitch a ride on the local ferry boat across the water. Their new home ends up

being a sanctuary for native endangered animals, just like themselves!

This story is both educational and important in its message, with plenty of facts and information about the Spotted-tailed Quolls' habitat, lifestyle, diet and conservation status.

Botanical Bookshop: an update

As we write our regular book reviews for the upcoming August issue of the *Fronde* magazine we are excited that we were able to re-open on the 2nd June 2020 following the difficult times that caused closure of the ANBG in March, and consequently the closure of the Botanical Bookshop. We are grateful for the continued support from customers using our online shop, and our staff have actually been quite (very!) busy in store during the past few months with stock take, cleaning, rearranging stock, packaging up postal orders and we are now about to begin working on revamping our website. We are certainly looking forward to seeing our regular customers again, and hopefully welcoming some new faces into our wonderful shop.

Did you know?... the Botanical Bookshop is a family owned business, open 7 days a week, located in the Visitor Centre. We stock a comprehensive range of books focused on native flora and fauna, indigenous heritage, gardening, reptiles, insects and birds. We have heaps of children's books, botanical art books, bushwalking and

hiking books, books on weeds, books on bees, books on astronomy... the list goes on! We also stock a great range of gifts including journals, tea towels, candles, soaps, essential oils, jewellery, honey, wooden trivets, scarves & ties, mugs, toys, writing pads & stationery, greeting cards ('best range in Canberra' according to our customers!), placemats and coasters, table runners, xmas decorations and much, much more! We are proud to stock an ever-increasing range of Australian made products, as well as locally handmade gifts.

Under the current climate of COVID-19 we will make every effort to keep the experience of shopping in our store as safe as possible by observing the physical distancing measures, provision of hand sanitizer, regular in store cleaning and reduced numbers of customers in store at any one time. Safety for our staff and customers is the priority and while we cannot predict future developments in the Gardens, we will do our very best to keep things as safe as possible while our shop is open.



Always welcomes Friends!

with a 10% discount on purchases over \$10, including the purchase of gift vouchers, on production of the customer's membership card for the person whose name is on this card.

No discount on redemption of gift vouchers.

www.botanicalbookshop.com.au

more information on our Facebook page at 'Botanical Bookshop'

As said, our website is being upgraded to include more of our books and gifts: www.botanicalbookshop.com.au

Please feel free to phone the shop on (02) 6257 3302 and we can manage payments over the phone and assist you with any purchases or enquiries. We also post regularly on our Facebook page.

We look forward to seeing you soon!

Warndu Mai, good food

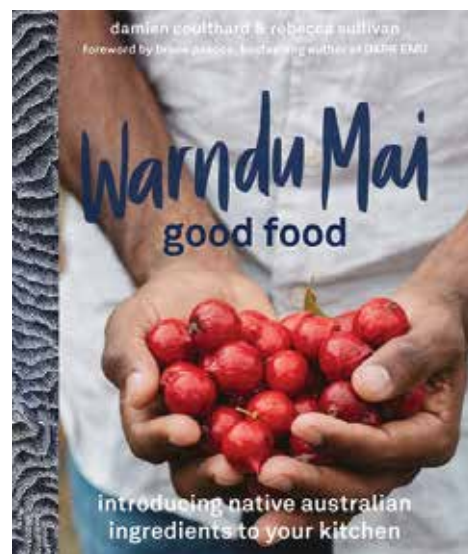
2019, Damien Coulthard & Rebecca Sullivan, Hardback, 256 pages, Colour photographs, \$45.00

Warndu Mai (Good Food) is a beautiful new book on introducing native Australian ingredients to your kitchen, packed with colour photographs and delicious recipes. We especially liked the informative section at the beginning of the book which details the authors' favourite ingredients with descriptions and clear photographs of the parts of the plant to be used.

The recipes look amazing... why not try making a jug of 'Boobialla Bitters' (has a great digestif effect after a meal), 'Green Ant Citronello' (nice as a dessert wine), 'Candied Flowers' (these just look

and sound gorgeous!), 'Macadamia & Garlic Greens' (Yum!), 'Chilli & Garlic Brussels Sprouts' (the dash of finger lime in this recipe might just be the key to helping us to love eating this often unappreciated little sprout!)...and then there's the 'Strawberry Gum Truffles' (these also sound delicious!), 'Pickled Rainforest Cherry Pie', 'Rainforest Marshmallows', 'Saltbush & Muntie Soda Bread'...and the list goes on!

With an interesting foreword by Bruce Pascoe, this book is contemporary, informative, and full of cooking hints & tips with over 80 recipes showcasing Australian native foods used to create unique dishes and treats. Grab that apron, try something new and get cooking with native Australian ingredients!



Sydney Parkinson, botanical draughtsman to Banks

Anne Rawson

HMB *Endeavour* sighted the coast of what was then called New Holland on 27 April 1770. It was nearly two years since they had left England and in all that time Sydney Parkinson, botanical draughtsman, employed by Joseph Banks, had kept a daily Journal. It reveals an intelligent, curious and talented young man (he was 23). For those two years he had been painting plants, flowers, fish, birds and bugs, everything that Banks and Solander collected. But in Tahiti he had also taken on the painting of landscapes, peoples, their dwellings, dress, implements, etc, because his colleague, Alexander Buchan, had died. Neither he nor Banks say anything in their Journals about this increased work load.

Parkinson's Journal, as they sailed up the east coast, commented on the country,

once like an English park, more often sandy, rocky and unimpressive. Quite often they sighted the people who lived there and every time Parkinson noted that they were naked. They noted that there was often smoke in the distance and speculated that it was sending messages about their presence. They left presents of nails and clothing on the beach but noted they were never taken. Banks and Solander collected many specimens at a place they called Botany Bay. Here they were approached by 'two Natives advancing to combat'. Parkinson made a finished painting of these two warriors with spears and a shield and bones in their noses and this is the only Australian painting that appears in his published Journal.

Parkinson's main task was to paint the plants that Banks and Solander collected but there were so many that he could no longer make finished paintings, only line drawings in pencil, with a little colour and notes about other colours to be used. The line drawings, as well as the finished paintings, are held in the Natural History Museum in London (NHM); very few of the drawings have been digitised and they tend to be very faint, however there are some on the NHM website. There is one painting

finished by Parkinson and that is of *Banksia integrifolia*. We only know of Parkinson's work from the beautiful paintings and engravings, based on his sketches, made by other artists who never set foot in Australia.

When the *Endeavour* was beached at Waalumbaal Birri, or what they called Endeavour River, Parkinson took the opportunity to get to know the people who lived there. They were

..naked, though of a diminutive size, ran very swiftly, and were very merry and facetious. Their bones were so small, that I could more than span their ancles; and their arms too, above the elbow joint.

He described their teeth, their hair, the painting and scars on their bodies, the bones in their noses and ears and their necklaces. As he had done in Tahiti and New Zealand he recorded a list of about 130 words of their languages.

He also described in detail many of the plants that grew there including what was edible. He described the birds that they saw giving the colours of their eyes and feet. He made two pictures of the kangaroo, one sitting, one leaping.



"*Xanthorrhoea resinosa*, Endeavour river
Artist:, Sydney Parkinson, Format, Finished
Drawing, Medium:, Watercolours on paper"
Reference: Natural History Museum, London



Sketch of Captain Cook's *Endeavour* by Sydney Parkinson. National Library of Australia, nla.pic-an9193430

Most notably he described the kangaroo:

... about the size of a grey-hound, that had a head like a fawns; lips and ears, which it throws back, like a hares; ... the hinder legs are long, especially from the last joint, which, from the callosity below it, seems as if it lies flat on the ground.

Another completed picture is a landscape of the *Endeavour* lying on its side at Endeavour River. The *Australian Dictionary of Biography* estimates that Parkinson made nearly 300 drawings while in Australian waters, out of a total of 900+ drawings and 280 paintings made on this journey.

Unfortunately this clever young man did not live to complete his paintings of all those extraordinary plants. He died a few days out from Batavia of dysentery and/or malaria, along with 15 of the ship's company. He was buried at sea.

Sources for this chapter

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3. 'Parkinson, Sydney 1747-1771' by Rex Rienits in *Australian Dictionary of Biography*. <http://adb.anu.edu.au/biography/parkinson-sydney-2537>
4. Visit the National Museum of Australia exhibition, *Endeavour Voyage, the Untold Story of Cook and the First Australians*.



"Sydney Parkinson, 'Two of the Natives of New Holland, Advancing to Combat.' From Sydney Parkinson's 'A journal of a voyage to the South Seas'." Copyright for this image is owned by the State Library Victoria.

Reference: <http://www3.slv.vic.gov.au/latrobejournal/issue/latrobe-41/fig-latrobe-41P005a.html>



"*Banksia Integrifolia*, Proteaceae Specimen collected by Banks and Solander in Botany Bay, Australia, between 28th April and 6th May 1770. Print made in 1987 from a copper plate created in the 1770s, based on a watercolour by an unknown artist, which was derived from Sydney Parkinson's pencil drawing."

Reference: Natural History Museum, London



"The first scientific description of a kangaroo was recorded by Daniel Solander when the *Endeavour* was forced to make an extended stay on the Endeavour River in Queensland to make repairs after hitting a coral reef. Linguists believe that the 'Kanguru' name which Cook recorded in his diary entry of 4 August 1770 is derived from a word in the Aboriginal language of the Guugu Yimidjirr people, whose word 'gangurru' refers to a species of kangaroo.

Macropus sp., kangaroo

Zoological drawing 4 (1:4) 'Kanguru'. Probably the first European drawing of a kangaroo, by Sydney Parkinson (1745-1771)."

Reference: Natural History Museum, London

Tree ferns and forest disturbance

David Lindenmayer, Fenner School of Environment and Society,
The Australian National University, Canberra, ACT, 2601

I have long had a passion for tree ferns. The back deck of my home is cluttered with them, grown from tiny seedlings. My wife hates them, but they remind me of the wet forests of Victoria where I have worked for the past 37 years (but which are currently not accessible to me given the COVID-19 lockdown).

Tree ferns are a critical part of the structure of Victoria's wet forests and two species are prominent in those environments – Soft Tree Fern (*Dicksonia antarctica*) and Rough Tree Fern (*Cyathea australis*). As suggested by their common names, the trunk makes them easy to distinguish in the forest.

Tree ferns are remarkable for many reasons. Perhaps most importantly in such times of unprecedented fire, they are a sign of hope – they recover rapidly after wildfire, even high-intensity and

high-severity wildfire. Indeed, they are often some of the first plants to throw green fronds in an otherwise extensively blackened environment. In fact, tree ferns can grow extremely rapidly after fire, most likely because the shading effects from the canopies of overstorey trees such as eucalypts are minimised¹. The characteristic unfurling of new fronds in tree ferns (and many other species of ferns) occurs because of differences in the rate of growth of the upper and lower surfaces of the fronds.

Given that tree ferns resprout after wildfire, they can be extremely long-lived with some studies suggesting they can exceed 350 years old². This means that a relatively young stand of wet eucalypt trees that regenerated after a fire (and which may be 20-80 years old) may have an understorey layer of tree ferns at least four times that age. This presents a challenge in defining old growth forest,

because different key plants (eucalypts and tree ferns) growing in the same place can be of markedly different ages.

Whilst tree ferns show remarkable and rapid responses after wildfire, they are extremely sensitive to the effects of logging. Populations can be reduced by as much as 95 per cent in wet forests subject to clear-felling^{3,4}. Impacts are even more pronounced after post-fire logging, which is sometimes called salvage logging, and which is currently widespread because enormous areas of wood production forest were burned in 2019-20. It is probable that the intensive mechanical disturbance from heavy equipment like cutting machinery, bulldozers and log skidders is the primary reason for such heavy losses of tree ferns in logged forests. The loss of tree ferns in logged areas but their persistence in burned forests shows just how different the effects of human disturbance can be from those of natural disturbance. These differences clearly matter in terms of how profoundly they can change the structure and composition of forests.

The loss of tree ferns from human-disturbed forests is of considerable concern. This is because of the wide range of roles that these iconic plants play. For example, the 'basket' in the crown of mature tree ferns is sometimes used as a nest site by birds such as the Olive Whistler and Grey Shrike-thrush. The basket of tree ferns is also a place where other plants germinate; I have often seen young Sassafras and wattles growing from the top of tree ferns, giving them a one to two metre start on competitors. Yet other plants such as Kangaroo Ferns, lichens and mosses colonise the woody trunk of tree ferns and the rich communities of plant species in such places can become important habitats for animal assemblages that include invertebrates like velvet worms and beetles.



PAM ROONEY



The young fronds of tree ferns are a food source for charismatic animals such as the Mountain Brushtail Possum. This species is far more likely to be found in those parts of the forest where tree ferns are abundant⁵. The Mountain Brushtail Possum's appetite for young fronds was not lost on early European settlers who set snares in the top of tree ferns to catch them. The dense pelts of the Mountain Brushtail Possum were then shipped to London to make hats, with the fur fetching high prices, even exceeding those of sea otters imported from North America. Fortunately, fur trappers are now long gone from Australia's mainland wet forests and the Mountain Brushtail Possum can now live in wet eucalypt forests without fear of being converted into hats for the English gentry.

Tree ferns are a wonderful and critically important part of forests in many parts of Australia. Their recovery and long-term persistence in burnt forests highlights the fact that media portrayals of fire-damaged forest as 'destroyed' is not only too negative but is also simply not correct. There is always life after fire and tree ferns demonstrate this admirably.

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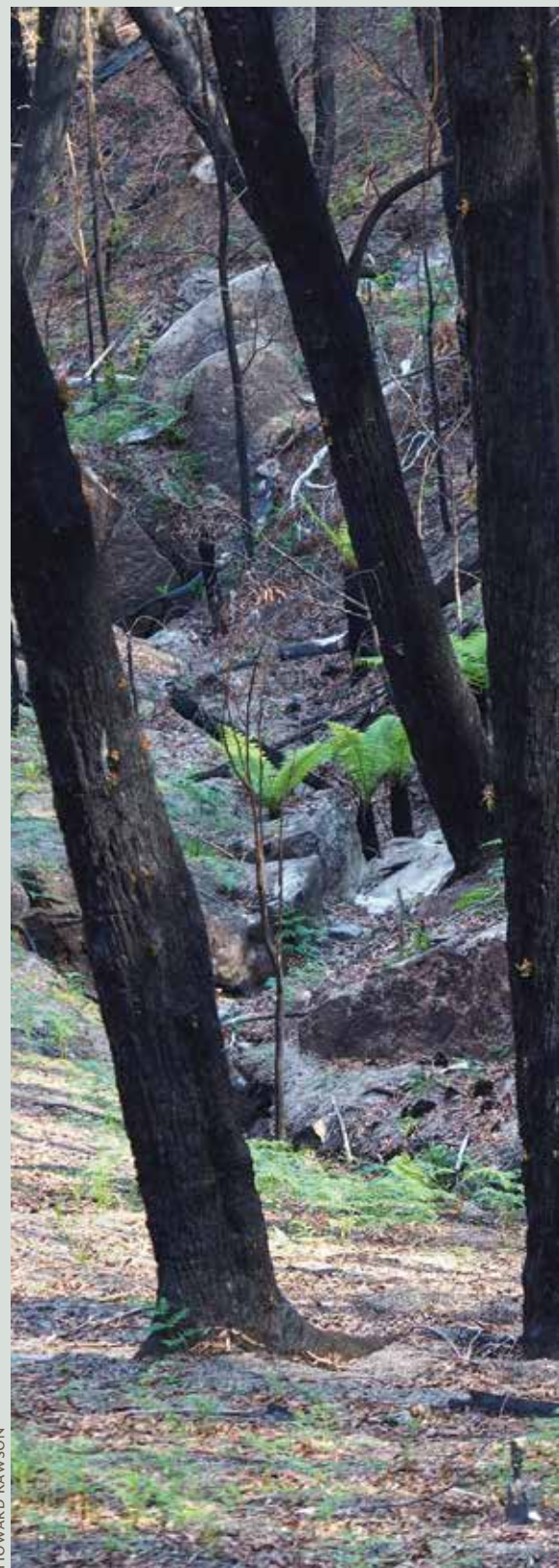


PAM ROONEY



Dedication

This brief insight into the world of tree ferns is dedicated to the memory of Marjorie Lindenmayer – longtime supporter of the ANBG. She lived her life with such grace and dignity and died the same way. She also loved tree ferns and took great pleasure in watching the ones I bought her flourishing in her front yard.



HOWARD RAWSON

Recovering treeferns at Howard Rawson's property, Wombalano, on the Bombala River

Ian Potter National Conservatory

Peter Byron, General Manager ANBG, and Heather Sweet, Senior Nursery Horticulturalist

The Ian Potter National Conservatory (Conservatory) is the first major development from the ANBG's 20-year Master Plan – announced by the Australian Government in June 2015. The Conservatory will be a national and international showcase of some of Australia's most beautiful and unusual tropical native flora. The Conservatory will feature tropical plant species from Kakadu National Park, the Wet Tropics of northern Queensland and Christmas Island. It is expected to be a major tourism draw card while also operating as a world-class research facility for rare and threatened Australian tropical plants. The Conservatory's stunning design is the result of a national competition won by Sydney-based architects CHROFI. Construction is planned to commence in October 2020.

The design of the Ian Potter National Conservatory has been completed. The Gardens is currently selecting a builder with the specialist skills for this high-quality project with construction planned to commence in October 2020.

Over several years, a range of extensive design and testing has occurred as this is an entirely new type of Conservatory that will feature world-class design and sustainability concepts. The unique design of the Conservatory will showcase an extensive range of Australian tropical plants – many that have never been cultivated before that were sourced from places such as remote areas of Kakadu and Christmas Island national parks.

The expertise involved in the design of the Conservatory has seen some of Australia's leading experts come together in the project such as architects from CHROFI, environmental engineers, landscape architects, light modelling experts, the Gardens tropical plant expert, Joe McAuliffe, and



View from South: solid walls for thermal performance and textured glazing presents intriguing visual play on approach



View from North: clear glazing to maximise daylight levels

a leading tropical plant physiologist from the Australian National University, Dr John Evans.

Thanks to funding from the Friends, the ANBG has appointed one of Australia's leading interpretation consultants, Trigger, to work with the Gardens staff to design the interpretative elements throughout the Conservatory.

The visitor experience will be supplemented by specially designed Soundscape that will provide sounds captured from Kakadu and Christmas Island and distributed at various layers in the rainforest canopy to recreate the effects of birds and wind in the trees along with the rustling of leaves and frog calls from the forest floor. The Conservatory will also feature special lighting systems to highlight the plant

collection that will be used for ticketed night tours.

The Conservatory will allow the Gardens to increase the number and diversity of Australian plants on display in its unique living collection. It will also provide a safe haven for numerous threatened species into the future.

As visitors enter the Conservatory, they arrive in the 17-metre-high Rainforest Chamber that features plants from northern Queensland's wet and dry tropics. The King Fern, *Angiopteris evecta*, will spread its large fronds and the characteristic silhouettes of the leaves of the Fan Palm *Licuala ramsayi* will enhance the tropical feel. Visitors will meander through the forest floor on a boardwalk, where the spectacular flowers of the native turmeric *Curcuma*



Exterior lighting



King palm, *Angiopteris evecta*

J MCAULIFFE

australasica will make an appearance during the wet season. It will take some time for a canopy to develop in this space and nursery staff are currently growing plants in the old display glasshouse and sourcing larger plants from outside suppliers to add height to the initial plantings. Several plant chandeliers will hang from the ceiling displaying epiphytic plants. Nursery staff are experimenting with different epiphytes and media to find what will best suit the conditions.

The downstairs section of the Conservatory is three metres below the Rainforest Chamber and has a completely different range of themes and experiences. The water feature starts as a trickling stream in the Rainforest Chamber and overflows down into a stunning pond of water that will showcase several large planter boxes of *Pandanus basedowii*, a spiky pandan from Kakadu.

A system of racks and shelves will form the basis of a 'plant library' displaying rare and threatened species from Kakadu and Christmas Island national parks – many that have never before been cultivated. This system will also provide an opportunity to showcase the work of our research projects. Visitors will be able to get up close to many of the plants on display and they will be complemented by informative interpretation panels.

One of many unique plants will be the critically endangered fern *Pneumatopteris truncata* from Christmas Island which has been grown from the spore collected by ANBG staff. The endangered *Hibiscus brennani*, which is endemic to Kakadu, will show its stunning bright pink buds which open to a paler pink flower that lasts for just one day. Visitors will be treated to a range of *Lithomyrtus* spp. from Kakadu, a group

of shrubs in the Myrtaceae family that produce a profusion of pink flowers.

A display from the Tropical Mountain Plant Science project will include rare endemic mountain top plants from the Wet Tropics. Changing the plants in this space will enable us to display the more interesting and beautiful plants from our holdings in the glasshouses that may not be suitable for long-term display in the Conservatory.



Cross section drawing of Conservatory

The Ian Potter National Conservatory is planned to open to the public in early 2022. It will be a world-class and innovative Conservatory and be one of the most significant new developments in the history of the Australian National Botanic Gardens.

(IMAGES SUPPLIED BY PETER BYRON, JOE MCAULIFFE & HEATHER SWEET)



Conservatory, elevation



Plants from nursery

Struggling to survive: depicting one of the world's rarest eucalypts

Halina Steele

When I first embarked on a project to exhibit with the Royal Horticultural Society (RHS) UK, in 2015, little did I realise that my interest in one of the plants I painted would still be with me today.

My theme for the RHS exhibition was *Australian Eucalyptus Mallees* and when I started researching them, an image popped up of *Eucalyptus recurva*. Further reading revealed that this Critically Endangered species wasn't discovered until 1985 and can only be found in New South Wales (NSW) at Mongarlowe and Windellama, all on private property. Genetic testing by the CSIRO has confirmed that there are now six individuals known. The size of the lignotubers suggests that the plants are probably at least several hundred years old.

Efforts to save this plant include the development of a Draft Recovery Plan by the NSW National Parks and Wildlife

Service which not only outlines distribution, habitat and threatening causes, but identifies actions required to support long-term recovery. In addition, *E. recurva* has been included in the Save Our Species program managed by the NSW Government Office of Environment and Heritage which aims to secure threatened plants and animals in the wild in NSW.

In the early 2000s, two plants were successfully grafted onto *E. parvula* root stock but unfortunately died several years later. During the same period, hand cross-pollination between three of the individuals demonstrated that viable seed can be successfully produced. Regrettably, this seed has lost its viability and the process needs to be repeated when at least two of the mature plants are flowering again. Very few viable seeds are produced in the wild and most of these are hybrids with other eucalypt species. The few apparently pure bred (self-fertilised) progeny lacked vigour and died within months of germination (this is typical for self-pollinated eucalypts).

In 2018, the Australian government provided funding to the NSW South East Local Land Services to undertake some conservation actions for the species. Much of this funding has been used to contract the ANBG to attempt propagation by grafting and cuttings.

In order to paint *E. recurva* I had to find it! Luckily I was put in touch with Robert Gourlay who owns a property in Mongarlowe.

Rob first heard about the discovery of a single plant of *E. recurva* from John Briggs who was the rare eucalypt expert at CSIRO in the late 1980s. John was about to commence experiments in pollination and raising seed to examine its viability and invited Rob to join him in a visit to the Mongarlowe site.

John gave Rob four seedlings from his original experiments and they are still growing on Rob's Mongarlowe property. Also, at the time of his first visit to the plant, Rob collected small pieces of the lignotuber that had been partly dislodged. One of the lignotuber pieces took root and produced a healthy plant. Over a period of 20 years, Rob has grown four new plants from lignotuber shoots from his plant.

When entries were called for the Botanical Art Worldwide exhibition, *Flora of Australia* (May 2018), I felt this would be the perfect choice of subject. I wanted to emphasise the plant's vulnerability and struggle to survive. For this I needed some new material, which meant another trip to Mongarlowe. I found exactly what I was looking for on one of the plants Rob had propagated and which was growing on his property.

Before writing this article, I again took the opportunity of visiting the Mongarlowe plant on Rob's property. Sadly, during this latest visit, I noticed signs of slight decline probably due to



Eucalyptus recurva, Mongarlowe mallee, 46 x 30 cm, watercolour on Arches hot pressed 300gsm, © 2018, Halina Steele

the drought conditions. Another concern was the recent devastating bushfires which went through the area. Thankfully, both the Mongarlowe and Windellama sites remained safe.

This is such a beautiful and unusual eucalypt - it would be a tragedy if it was lost forever. I hope a method to successfully propagate this plant will be developed to ensure *E. recurva*'s survival for future generations.

I thank Robert Gourlay and John Briggs for their valuable assistance and contributions to this article

This is an edited extract from an article Halina Steele was invited to write for the quarterly journal of the American Society of Botanical Artists.

A resident of Canberra, and member of the Friends Botanic Art Groups, Halina has painted several rare and endangered species. In 2015, she received a Gold Medal from the Royal Horticultural Society (RHS) UK, was awarded Best Botanical Art Exhibit, and the RHS purchased her painting of *E. recurva*.

STEPHANIE GOURLAY



Halina and Robert Gourlay at Mongarlowe 10 May 2020

HALINA STEELE



E. recurva buds with splitting bract. 'One of the intriguing details I observed while I was studying the plant is that the bract enclosing the developing flower buds opens to reveal a cluster of three buds.'

HALINA STEELE



E. recurva in bloom

HALINA STEELE



Eucalyptus recurva habitat at Mongarlowe, New South Wales, Australia

Eurobodalla Regional Botanic Garden:

Michael Anlezark, Manager, Eurobodalla Regional Botanic Garden

Eurobodalla Regional Botanic Garden reopened on 3 July 2020. Over the last six months we have been working hard to rebuild our broken infrastructure and make our site visitor-ready. Even though we continue to be hampered with COVID-19 restrictions on our volunteer numbers we have made great progress.

Rebuilding our main entrance bridge has been completed and almost 20 other bridges and walkways have now been replaced. Staff with our reduced numbers of volunteers have rebuilt five sets of stairs, replaced hundreds of metres of timber path and garden edging, spread vast amounts of mulch and cleared away countless blackened remnants of vegetation. Our nursery is slowly being refilled with returned foster plants and newly propagated material. and we are starting to put plants aside for replanting and restocking our plant shop. We have restocked our plant shop and there is a good selection of plants for sale.

Demolition over the site is complete and rebuilding of the workshop, depot and barbecue shelter at the play space will commence hopefully within the next few weeks.



Repairing the Pavilion



Forest walk recovering



Although fire recovery work has been our highest priority we have also been working on finalising our redevelopment project which includes the installation of solar panels on the visitor centre roof, paving the new plant shop, security fencing and many finishing touches to the interior of the visitor centre. Plans for a series of new display gardens have also been completed and we are ready to start construction.

It is essential that in the future we never again suffer such devastating losses and damage to infrastructure therefore wherever possible we have replaced timber frames with steel and several bridges with solid paths and culverts. Wood chip mulch around buildings has been replaced with recycled crushed brick and retaining wall posts are being replaced with steel ones. Polycarbonate sheeting panels that allow extra light into sheds and workshops will no longer be used as we believe they provided an easy entry to hot embers.

The Garden is becoming a better place, a stronger place with a much greater chance of future survival. Over time it will also become a more beautiful place as the fire has forced us to rethink the landscape by creating new sight lines and providing the opportunity to plan and build vibrant new plant displays and facilities.

As we continue through this planning and rebuilding stage we only hope that visitors will be understanding and accepting of our circumstances, that despite the huge recovery efforts we have put into the Garden it is still a much damaged landscape that will take years to fully recover.

Garden Shorts

Report from the Executive Director,

Planning for the Gardens 50th Anniversary included year-long celebratory events, exhibitions, parties, new garden openings and so much more – but who would have thought our Golden Anniversary was to be plagued by bushfires, hazardous smoke, hail storms and the COVID-19 pandemic!

Despite these unfortunate events beyond anyone's control and witnessing first hand the strength, flexibility and sheer resilience of Gardens staff, volunteers and the Friends, I am even more proud to be celebrating 50 years of this wonderful institution and the people who continue to make the Gardens a very special place.

Even though we closed our gates for several weeks to play our part in reducing the spread of COVID-19 and protecting the Gardens community, plenty of work continued behind the scenes. While some staff worked from home in stimulating isolation, others juggled working and schooling from home, while other staff were on site ensuring our precious living collection was cared for and that construction and refurbishment works continued to run on schedule.



Banksia Garden, set to officially open in spring

The new Banksia Garden continued to transform during closure and most of the garden is now complete. We are excited to have all east coast species in the ground with the more sensitive Western Australian species to follow once the worst of the winter frost has passed. We are very much looking forward to officially opening the Banksia Garden in spring.

Major upgrades have been completed in the Crosbie Morrison Building – our most popular indoor venue for functions, conferences and weddings. The Banksia Centre (formerly known as the Banks Building) which was badly

damaged in the January hailstorm has been completely refurbished. The damaged glass roof has been replaced with insulated Colourbond roofing to match the external facia. The damaged glass windows have been replaced with double-glazed glass that open for passive cooling, with internal blinds for shading in summer. Together with new flooring, external fascia, new kitchen and refurbished toilets these bring a modern new look to the Centre.

These works improve the overall look and energy performance of the building substantially, creating a destination education environment for school groups.

The next big project onsite will be the construction of the Ian Potter National Conservatory that is planned to commence in October.

Judy West

Putting Systems in Place to Stay COVID-19 Safe

Things may look a little different the next time you visit the Gardens. In our efforts to stop the spread of COVID-19 and in our commitment to the ongoing social distancing regulations, the Gardens now feature one-way flow paths and walking tracks, directional signage and arrows encouraging the 1.5m social distancing rule, and sanitising stations have been placed around the Gardens.

Visitors are now welcome to dine-in and take away from Pollen café (bookings recommended for dining in), and the Visitor Centre, Botanical Bookshop and Jindii Eco Spa are also open.

Comparing Rainforests with the Red Centre

Two environmental monitoring stations are now in operation at the Gardens, thanks to a project commissioned by the Gardens with UNSW Canberra.

Visitors can now directly compare the environmental conditions of the cool, lush Rainforest Gully with the dry arid conditions of the Red Centre Garden while standing in either location, or access the information online.

The monitoring stations integrate state-of-the-art environmental sensors linked to display panels in each of the two locations. Data is collected and recorded each hour, and links directly to a website where virtual visitors can also observe and compare the environmental conditions online. Ten different parameters are displayed ranging from air temperature, humidity and wind speed to soil and leaf moisture.

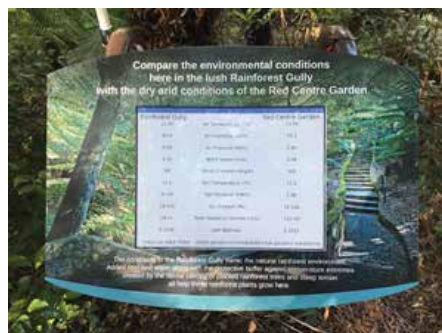
Not only do the display panels engage visitors in considering the link between the plants, their surroundings and climatic conditions, but the project opens possibilities for research and education within the Gardens.

Changes to the 50th Anniversary Program

With the threats of COVID-19 and the on-going social distancing regulations there have been some changes to the Gardens' 50th Anniversary program. Please keep an eye on the Gardens' website for the most up to date information. (Images supplied by Gardens staff)



A new front path has been constructed outside the front gates to improve pedestrian access



Environmental monitoring stations



Banksia Garden update

Staff of the ANBG Living Collection

The construction of the Banksia Garden was completed in July. It has been a massive effort by the Living Collections team to get this garden construction completed, particularly with delays caused by the COVID-19 closure of the Gardens. All the staff working on the construction are very proud of their work and they are all looking forward to a break from sandstone and getting back to their normal roles in the Living Collection.

The lighting throughout the Banksia Garden will make this a great space for night time events. Lights in the walls, pergola and bollards will look stunning as they light the structure of the banksias, as well as highlighting the stone and metal elements throughout the garden.

The pergola will provide protection for some of our more sensitive banksia species while also providing a gathering space (with social distancing) for groups visiting the new garden.

The large sandstone drywall is a major design feature in the garden as well as providing some protection for frost sensitive species that will be planted

on its northern side. The wall has been orientated to the winter sun to capture heat and release it during the night.

All the eastern Australian Banksia species have been planted and are currently settling in nicely. These will provide a screen for the Growing Friends nursery, as well as displaying a wide range of forms of the eastern occurring banksia species. This area will also showcase the subtle differences that *Banksia spinulosa* complex represents.

Another area of interest is a sand dune section showcasing *B. integrifolia*. A meandering creek along the eastern boundary of the garden links all the species, with drifts of *B. robur*, in both the purple foliage form, 'Purple Paramore' soon to be commercially released by the ANBG, as well as the green form. The creek provides the perfect environment for *B. robur* to thrive, as well as being a backdrop for the *B. integrifolia* dune.

A small number of Western Australian species have been planted and include *B. baxteri*, *B. coccinea*, *B. prionotes* and *B. grandis* which are all looking good despite our cold overnight temperatures. We are waiting with anticipation for our forest area to grow, where we are

developing a mini forest of *B. grandis*, adjacent to another mini forest of *B. serrata*. The location of the mini forest provides a visual link to the neighboring melaleuca forest and the Paperbark Treehouse Garden. The remainder of the western species will be planted in early spring as a precautionary measure so they can establish outside of winter.

The burnt banksia section tells the story of the importance of fire in banksia germination with accompanying interpretation. This section will appeal to school groups and engage them in the amazing world of banksias. The Friends Public Fund has funded an extensive range of interpretative signs that will foster an interest in banksias for all visitors to the garden.

We are looking ahead to the official opening of the Banksia Garden (that will occur later in the year) with excitement and anticipation, we hope you are too. The Living Collections staff are very grateful for the Friends funding that enabled this important garden to become a reality.

PHOTOS SUPPLIED BY STAFF OF ANBG



Looking through the pergola toward treehouse



Dan Marges working hard to finish the drystone wall



The plexiglass roof of the pergola with engraved banksia leaves

Friends 30th Anniversary Vase

Would you like to own a lovely piece of art work especially commissioned to celebrate the 30th Anniversary of the Friends of the ANBG?

The Friends have had a small number of vases made by Canberra based ceramic artist, Nichola Leeming. These lovely porcelain vases feature our ACT floral emblem – the *Wahlenbergia gloriosa* (Royal Bluebell).

The *Wahlenbergia* design is hand incised into the damp clay and embedded with black porcelain using the centuries old technique of “mishima”.

Nichola is a Canberra based studio potter, currently enrolled in ANU Bachelor of Visual Arts (Ceramics Major). She was approached by the Friends for

this commission after winning the Best Adult Wheel Thrown award last year at the 2019 Canberra Potters Society Teacher/Student Exhibition.

We have commissioned 20 vases, 10 large and 10 small. The large vase stands at about 19 cm high, and costs \$85. The small vase, about 12 cm high, costs \$65. There is a limit of one vase per membership.

If you would like to purchase one of these special mementos, please place your order by email to: vases@friendsanbg.org.au or phone Tricia on 0421 131 898 Please include the following information in your email:

Name

Phone number

Whether you would like a large or a small vase



We will phone you to take credit card payment over the phone, or to arrange a direct payment into our bank account. We will then make arrangements for you to pick up your vase, or we will deliver (to addresses in Canberra). Should you live outside Canberra and wish to have your vase mailed, we will arrange this (but will require an additional \$20 to cover postage and packing). Orders will be filled in order of receipt. Please get your order in quickly so that you don't miss out.

Friends' AGM – to have and to hold . . .

Council has been deliberating on the holding of the Friends AGM, given the current restrictions on the number of people who can gather in one space.

We have been advised by the Management of the Gardens that at present we would be allowed to hold our AGM in one of the rooms at the Gardens but we would only be allowed to have around 25 present, which is the

number of our quorum in the Constitution. But the ACT government has been making regulations that allow some flexibility to both the holding and the modes of holding AGMs by not-for-profits. We have decided to hold off until September to make a decision on how, where and when the AGM will be held. We will advise in the eNewsletter as soon as this is decided.

Max Bourke AM, President

Online membership renewals

Paying bills and ordering online has become ‘the new normal’. The Friends will soon start accepting online payments for membership renewals.

By using a secure payment page on our website and a credit card, you can save yourself the trouble of paper forms, cheques and envelopes. Of course, you can still choose to pay by EFT or cheque if you prefer – it will be up to you.

Online payment is quick and easy, and it reduces the effort for our volunteers in handling paper forms and typing information into our membership database.

Full instructions on how to renew online will be included with the renewal notices posted out to members later this year, and will also be available on our website.

Botanic Art Groups

In March this year our botanical artists were in the last stages of preparing for our exhibition in April. Judges had vetted entries and artists were having their work framed when COVID-19 sent us all into lockdown. Members have found ways of keeping themselves busy though. Some artists have kept in contact by video calls and emails. Some have welcomed this quiet time to work on unfinished artworks and to explore Youtube tutorials such as the botanical art of Julia Trickey. A number have been contributing miniature paintings (3 cms x 7 cms) to Carmel Killen, a Melbourne artist who is preparing an exhibition of threatened native animals and plants.

Hopefully, we will soon be out of hibernation and able to present our exhibition, *Legacy of Banks and Solander in the Visitor Centre Gallery in October.*

At this stage we are not certain of the dates, so please check the Friends website www.friendsanbg.org.au. We are looking forward to being able to present beautiful works illustrating a variety of Banksia species as well as other plants observed

by Banks and Solander on Cook's voyage 250 years ago.

Kate Ramsey

Growing Friends

March started off well as Growing Friends' members enthusiastically prepared for the autumn plant sale. After nurturing plants through heat, smoke, drought and then the devastating hail storm, the group thought that they had a selection of plants which could weather anything that the Canberra climate could throw at them.

Then, as COVID-19 forced the Gardens to be shut to all volunteer and Friends' activities, we had to say goodbye to our plants and tell them that we would be back. However, the plants were not left to fend for themselves. Gardens' staff took over the watering and also kept an eye on them to make sure that no Triffid-like thoughts were allowed to develop. Growing Friends very much appreciates the work done by the Gardens staff, and as these photos taken by rangers in late-May show, the plants have thrived under their surrogate carers.



ANBG RANGERS

On Monday 25 May the Gardens reopened in a limited capacity. This gave us the chance to admire the work that Gardens' staff have done while the rest of us have been in lockdown. With much clearing and tidying having been done and many plants flowering out of season, in reaction to recent months of extreme weather conditions, and trees denuded by the hail springing back to life, the Gardens were a delight to behold.

Growing Friends, though, were seeing the Gardens through a different lens. With all the out of season flowering and an abundance of new growth, there is the opportunity to consider plants as potential candidates for future propagation sessions, once we are back on deck. Plants already with heavy seed loads have also been spotted.

One member also regaled us with the origin of some of the Gardens' plants. Friends have been involved in various seed and cutting collection escapades to national parks and the like, resulting in many polystyrene boxes full of labelled and documented specimens. Some of these plants have found their way into various botanical gardens, including the ANBG.

Like all other Friends' sub-groups, Growing Friends look forward to



Cornelia Buchen-Osmond: *Banksia blechnifolia*;
Cornelia Buchen-Osmond: *Banksia blechnifolia*;

renewed Garden access once the COVID-19 regulations are relaxed. There is strong anecdotal evidence, though, that the green bins of Growing Friends have been filled to overflowing every fortnight and that all weeds in members' gardens have been eradicated during shutdown (although if you believe the latter then you most probably also believe in Santa Claus). In the meantime, for those enthusiastic gardeners who have questions about their native plants, Growing Friends has many experienced members who are most happy to help new members with answers and solutions.

For more information on how to join the group please email growingfriends@friendsanbg.org.au

Donna Growcock

Plant Science Group

All activities of the Plant Science Group were suspended in March due to COVID-19 restrictions on gatherings. We are awaiting advice on when it may be appropriate to recommence.

John Busby

Photographic Group

Our hunger to go and stroll through the Gardens photographing the beautiful flora and fauna was put on hold this year for several reasons – wind, smoke, hail and then COVID-19. Hopefully when you read this article, we will be back in action helping provide valuable photographic records for the Gardens.

We have endeavoured to stay strong as a group by firstly organizing a safe distance walk around the gardens in May and holding Zoom show and tell online meetings which commenced in June. The committee has maintained communication with members throughout the pandemic via email newsletters.

With access to the Gardens being unpredictable, the committee has decided to postpone the competition

section of our advertised exhibition/competition planned for this year. This was to be open to all members of the Friends. The combined competition/exhibition will now be held in 2021; details will be released early next year.

However, it is with a positive attitude that we are going ahead with planning an exhibition in November – open to members of the Photographic Group only. It will still be titled *Reflections*.

Membership of our group is open to all Friends of the Gardens. You will find us in the Get Involved section on the Friends website or you can email us at photo@friendsanbg.org.au. Our meetings are generally held on the last Friday of the month in the thetrette opposite the Visitor Centre, from 10.30 am – 12 noon. A guest speaker or a member of our group will do a presentation. This may change to an organised outing either in the Gardens or outside. Once you have joined you will receive a regular update via our monthly newsletter, or you can refer to the Friends calendar of events on their website.

Hopefully, by November, you will be able to view our yearly, fund raising, exhibition – REFLECTIONS scheduled for 19 November until 6 December.

Helen Dawes

Volunteer Guides

As Friends would be aware, all guiding activities have been suspended since 17 March. We all missed out on so many special guiding events planned for autumn of this anniversary year. Since then, guides, like others, have focussed their botanical interests, on their own gardens, or rediscovering nature reserves and parklands.

We have also taken the opportunity to plan ahead. Some guides have been investigating ways of providing specific tours for family groups, as well as alternative ways of guiding for visitors.

Others have been involved in reviewing and updating the wealth of online resources that we use as reference materials for guided tours. To replace our usual professional development sessions, guides have prepared and disseminated online 'presentations', encouraging all of us to spend time on learning activities. And, like everyone else, we have organised and chatted in Zoom meetings.

But most enjoyably, we have taken the opportunity to get to know each other better. With around 80 guides recruited at different times over a 20 year period (or more), we rarely have opportunity to get to know everyone well. This was the perfect time to find a way to do just that. In the last few months we have been circulating stories about ourselves: how our interest in plants developed, why we like guiding and our other interests, skills and careers. We have discovered that there is an amazingly diverse set of experiences and expertise amongst guides. The common thread has been a fascination with Australian plants, but everyone has come to this in different ways: through living in various locations; through childhood experiences in the bush; through related careers, such as forestry or science; through education, communication or other social sciences; and as gardeners, bushwalkers, artists and photographers. I have no doubt that this richness and diversity is what makes every guided tour interesting in a rather unique way.

So it is always a significant loss when a guide retires, and we lose their companionship, skills and ideas. We thank Peter Heaume for his contributions as guide and roster secretary (and some lovely photos), and wish him well as he moves onto new interests.

In March we lost Steve Galliford. All guides were deeply saddened to learn of his death (p26), and will miss his contributions greatly.

Lesley King

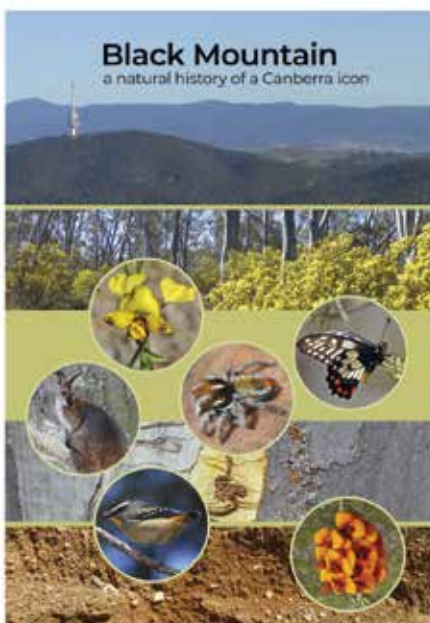
Black Mountain: a natural history of a Canberra icon

Ian Fraser and Rosemary Purdie with Friends of Black Mountain

This wonderful book, published to celebrate the 50th anniversary of Black Mountain Nature Reserve, is a great read for anyone interested in Black Mountain. The book takes us to the ecological heart of Black Mountain, in the heart of Canberra; a conservation reserve since 1970.

Pre-order your copy now to receive an early bird price. FoBMPublicationSales@gmail.com or 0404 148 721

It will become available at the Botanical Bookshop



Vale Steve Galliford (1952 -2020), ANBG Volunteer Guide

Steve was a greatly respected guide, and we will miss him immensely. He always demonstrated great commitment to the Gardens, volunteering and to his fellow guides. He was a lovely, kind person. His great enthusiasm and active interest in the Gardens were wonderful. He mentored new guides and went out of his way to provide support to others.

Steve became a guide in 2013, and continued contributing up until the time of his death. Even after he was unable to take tours, due to loss of voice, he ran a working group that developed a Pomaderris Handbook, as a resource for all guides. He put a lot of effort into that, using speaking software and writing things down. He continued to attend many Guides' meetings.



Steve died on 31 March, after being in Clare Holland House for around three weeks. There was an online memorial service on 11 April 'attended' by a number of guides. We will miss him.

Just the spirit to celebrate the Gardens half century

Canberra Distillery, Underground Spirits, partnered with the ANBG to create *Ad Crescendum*, a botanical gin created with specially foraged native botanicals grown in the Gardens.

Ad Crescendum is Latin for 'to grow', and is a nod to the many precious plants and flowers grown, nurtured and protected at the ANBG. It features botanicals from all over Australia including Banksia, Finger lime, Rainforest Aniseed, White Aspen and Yam Daisy. *Ad Crescendum*, released to celebrate the Gardens' 50th Anniversary year, will remain part of Underground Spirits' permanent line-up of premium Canberra-made spirits.

Peter Feilen, the Gardens' horticulturalist, who cooperated with Underground Spirits to select the botanicals for the gin, said he 'couldn't be prouder in celebrating the foundation of our institution, drawing on Australia's rich plant heritage to create this special edition 50th Anniversary Gin'.

We hope you will celebrate our anniversary, support the Gardens and join our anniversary good spirits.

Underground Spirits' *Ad Crescendum* Gin is available to purchase online from www.undergroundspirits.com.au, and from select retailers in Canberra. Part of the profits from this gin help support native plant conservation activities by the ANBG.



Details of events are correct at the time of printing. For changes and updates please check the Friends' website at www.friendsanbg.org.au or the Gardens' site at: www.anbg.gov.au

Sunset Cinema

19 November – 9 January 2021

Head outdoors for an unforgettable night of film under the stars.



Introduction to Botanical Art - Painting Eucalyptus Leaves

Online Tutorial with Cheryl Hodges

Cheryl Hodges, well known local botanical artist, and member of the Botanic Art Groups at the Gardens, has created an online tutorial for beginners to botanical art. Having taught botanical watercolours for several years, she is aware that students often have problems painting leaves. She decided to work this tutorial around our beautiful Eucalyptus leaves and the watercolour techniques which can be applied to them. The tutorial is aimed at beginners, but artists with some experience will also gain knowledge of Cheryl's techniques and pointers. Cheryl is offering the course at a discounted price of \$49.99 (normally \$69.99). Go to her website: www.cherylhodges.com/workshops and you'll find a link to her online tutorial, where you can see preview videos, to decide if this tutorial is right for you.

EXHIBITIONS

Visitor Centre Gallery, Open Daily 9.30 am – 4.30 pm, FREE

Please confirm dates on either the ANBG or Friends website

PARADISE LOST – SOLANDER September (dates to be confirmed)

An art exhibition commemorating the legacy of the Swedish botanist Daniel Solander. Presented by the Embassy of Sweden in Canberra and the Solander Gallery in Wellington.

LEGACY OF BANKS AND SOLANDER September – 25 October

An exhibition of botanical art representing Australian native flora by members of the Friends Botanic Art Groups. The exhibition focuses on banksias and the plants collected by Joseph Banks and Solander on their discovery voyage of Australia.

24TH ANNUAL FRIENDS SCHOOL PHOTOGRAPHIC COMPETITION

28 October – 15 November

A retrospective showcase of Australian school students' creativity and photographic skills in colour, monochrome and altered reality. This year it will not be a competition.

REFLECTIONS 19 November – 6 December

Beautiful photographs taken within the Gardens by the Friends Photographic Group. Unframed prints and cards for sale.

POSTPONED EXHIBITIONS

TALKING WITH TREES

Previously 15 July – 9 August 2020 has been rescheduled to **5 – 30 May 2021** TO COINCIDE WITH CANBERRA TREE WEEK.

NATIVE PLANTS THROUGH VISITORS EYES

Previously 14 August – 13 September 2020 now rescheduled to **October 2022**.



Eucalyptus leucoxylon leaves, watercolour, Cheryl Hodges

Wake Up with the Birds 2020

At this time of year, preparations for Wake Up with the Birds is usually well underway with the dates chosen to coincide with Floriade. Unfortunately, this year we may not be able to hold this popular event due to COVID-19 restrictions. Social distancing could be part of our lives for a while yet. Please check the Friends website and the monthly email for updates.

Thursday Talks

Due to the COVID-19 pandemic Thursday Talks will not be live in the theatre for the remainder of 2020, however the ANBG and the Friends are exploring ways that may present an opportunity for some talks to be made available online.

This decision has been made by the ANBG and the Friends' Council due to social distancing requirements and the small nature of the theatre.

The talks that the Committee had arranged for September through to November included:

- Panel discussion on ANBG perspectives – 50th anniversary of the Gardens
- Jane Black (ANBG Librarian) – ANBG art show in Canberra
- Dr Arnagretta Hunter (Cardiologist) – Climate change and health
- Dr Prame Chopra (Geophysist) – Melting ice and rising seas: how much and how fast
- Dr Judy West (Executive Director, ANBG) – ANBG and its 50th anniversary
- Dr Patrick de Decker (Emeritus Professor, ANU) – 200 years of data for Lake George: facts, myths and legends
- Dr Stuart Rae (Visitor, ANU) – The Little Eagle
- Lindy Butcher and Corin Pennock (ACT Wildlife) – ACT Wildlife and its wombat program
- Nancy Tingey (founder of Painting with Parkinsons) – 25 years in the Garden – the story of painting with Parkinsons
- Peter Byron (General Manager, ANBG) and Joe McAuliffe (Nursery Supervisor, ANBG) – The design of the ANBG conservatory and the plants it will house
- Anthony Whalen and Anna Fuchs (ANBG) – Global alignment of biodiversity informatics systems
- Brett Howland (ACT Government) – recent research
- Ian Walker (ACT Conservator for Flora and Fauna) – Climate resilient environments and communities

The Committee is in touch with all the speakers that had agreed to speak in 2020 and are busy rescheduling their presentation where possible for 2021.

To our Thursday Talk audience, take care, and we will be back in 2021 with a full and interesting program.

Thursday Talks Committee



FRIENDS BENEFITS

As a Friend you are entitled to:

Three issues of *Fronde* a year

Three hour free parking pass

Discount at:

Botanical Bookshop (most items)

Pollen

Jindii Eco Spa

Cool Country Natives in

Pialligo

Australian Choice, Canb.

Centre

You also receive:

Advance details of lectures

Advance bookings for some events

Discounts on some events

ANBG library membership –

borrow books, serials, videos,

DVDs plus use of computers and

interactive CD ROMs

Function facilities – special rates

for functions at ANBG

And opportunities to:

Join Botanical Art Groups

Growing Friends

Photographic Group

Plant Science Group

Assist with Gardens' research projects

Become a Guide

Relax in the Friends Lounge

in the Ellis Rowan Building,

open to members 9.30 am to

4.30 pm. Relax with tea/coffee

and lots of interesting reading.

