

Friends of the Australian National Botanic Gardens

NEWSLETTER

Number 62 August 2009



Wattle—a symbol, a gift, a celebration



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The Friends Newsletter is published three times a year. We welcome your articles for inclusion in the next issue. Material should be forwarded to the Newsletter Committee by the first of June for the August issue; first of October for the December issue; and first of February for the April issue.

Email or post material to the Newsletter Committee at the above addresses or, place in the Friends letterbox, located inside the Gardens' Visitor Centre between 9.00am and 4.30pm, Monday to Sunday. Editorial messages: telephone (02) 6250 9548.

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Cover: *Acacia pycnantha* Golden Wattle photographed by D. Greig. Copyright ANBG.



Light on the horizon

Alan Munns, President, Friends of the ANBG

Most Friends will have seen media reports about the Botanic Gardens in June this year. Some very welcome news emerged. The first and most significant is that the Gardens has been given permission to draw water from Lake Burley Griffin. Funds have been provided by the Commonwealth government and work is expected to start in spring. Secondly, it was announced that the Australian Research Council has agreed to fund a scientific research project in the Gardens on the effects of climate change on Australian alpine plants. The Friends are partners in this project. Details are on page 3 of this newsletter. Thirdly, the old nursery site in the Gardens will be 'remediated' for the Gardens' 40th birthday next year. The site has become an eyesore since the nursery moved to its present site in 2004. The Friends welcome work to fix this in the short term, and look forward to recommendations in the new management plan for permanent redevelopment of the site.

Some media reports concentrated on problems in the Gardens. The Friends have drawn attention to these in the past, trying to be constructive. We have emphasised that a visit to the Gardens is always an enjoyable and rewarding experience. We particularly pay tribute to the skills and dedication of Gardens' staff.

In March this year the Friends submitted ideas on what we think the new management plan should contain. Our recommendations are summarised on Page 10 of this newsletter and the full submission is on our website at: <http://friendsanbg.org.au/managementplan.pdf>

Friends Council is meeting in August to have a detailed look at the vision and objectives of the Friends in the context of the new management plan. We will also look at operational matters – the things we do to achieve our objectives. Any ideas from members about what you would like to see the Friends doing in the next year or two would be very welcome. Please send suggestions to: info@friendsanbg.org.au or drop a note into the Friends mailbox in the Visitor Centre. Members will be given an opportunity to comment on a draft of a new strategic plan before it is finalised and adopted.

IN THIS ISSUE

Light on the horizon	2
Alpine research and other Friends projects	3
Wattle, a natural choice for symbol	4
A gift of wattle	5
An evolutionary tree of trees	6
Celebrate our Wattle: an exhibition	6
What's On	i-iv
From the bookshop	7
Botanic art groups' exhibition	7
Charles Darwin, observant gardener	8
New signs coming	9
Friends recommendations on ANBG management plan	10
Garden shorts	11
Friends briefs	12



Alpine research and other Friends projects

David Coutts

The Friends are involved in an exciting new research project recently given the green light for funding by the Australian Research Council (ARC). The alpine seed ecology project involves collaboration between the Australian National University (ANU), the Gardens and the Friends to research methods for conservation of alpine seeds and how Australian alpine plant species can be expected to respond to predicted climate change.

The Australian alpine region is recognised as a conservation zone of international significance and the Australian Alps national parks are inscribed on the National Heritage List. The region is critically vulnerable to climate change and many alpine plants are under threat of extinction.

In an Australian first, this research program aims to identify a range of species that will act as climate change indicators for Australian alpine plant communities. State of the art seed banking, based on germination, dormancy and longevity, will be developed to provide conservation of nationally vulnerable and threatened alpine flora, providing insurance against extinction. The project will also provide a national resource of alpine seeds for revegetation and research.

The ANU is the administering organisation and the Gardens and Friends are partner organisations. The total value of the project (cash and in kind contributions) is about \$760,000 over three years, with \$253,000 being contributed by the ARC grant. The Friends will contribute around \$22,000 a year for the three years commencing in 2009-10 and will also be making in kind contributions to the project. The Friends see this project as having a number of benefits:

- it moves ANBG towards becoming the centre of excellence for work on native alpine species, especially in the context of climate change
- it gives momentum towards re-establishing ANBG as a research centre
- it should lead to a physical display, research and educational facility on alpine plants and climate change at ANBG and, we hope, an interpretative alpine garden
- it will provide a range of volunteer opportunities for Friends, to collect seeds and help with the seed bank.

The project is being led by Dr Adrienne Nicotra, from the School of Botany and Zoology, ANU. The key researcher is Dr Gemma Hoyle, with support from Roger Good and Dr Kathryn Steadman (Univ. of Queensland). David Taylor, Joe McAuliffe and Sarah Fethers at ANBG will be closely involved. Friends contact is David Coutts.

Other Friends projects

A key priority of the Friends is to raise money to support the Gardens. That money has funded a wide variety of projects over the past 20 years including the Cascades water feature, a fogging system for the Rainforest gully, feature plants, and electric scooters for disabled visitors. Recently, the uncertainties associated with reviewing the future directions for the Gardens have meant there are few, if any, opportunities to support large scale projects so the Friends have been focussing on smaller scale projects that can be delivered fairly quickly, for example:

- 2009 spring flower display
- a DVD now available in the Bookshop—the excellent work of a team led by Sheila Cudmore is acknowledged
- a souvenir booklet which will be available through the Bookshop
- a lichen website by Heino Lepp, funded through the Friends Public Fund, should be finished late 2009
- extension of fogging system in the rainforest gully.

Suggestions for projects are always welcome. Email: info@friendsanbg.org.au or ring the convenor of the Projects Committee, David Coutts, on 6258 8840. A list of projects funded by the Friends over past years is at: www.friendsanbg.org.au.

Top: Photos all by Joe McAuliffe: *Ranunculus gunnianus* (flowers) growing with *Caltha introloba* in a short alpine herbfield; *Stackhousia pulvinaris*; ANBG staff Anne Phillips (top) and Heather Sweet (below) collecting *Oschatzia cuneifolia*; *Erigeron setosus*. Bottom: Daisies from Gardens 2008 spring flowers (Anne Rawson); Mist in the Rainforest Gully; cover of Friends DVD (see page 10).



Wattle: a natural choice for a symbol

Edwin Ride



This year we celebrate the coming-of-age of our official floral emblem, *Acacia pycnantha*, the Golden Wattle, declared in our bi-centennial year. One hundred years earlier, as the centenary of European settlement approached and the colonies contemplated appropriate celebrations, the lack of formal, visible symbols to represent this country became apparent. It would be another twelve years before Federation brought this issue to a head, and a national flag chosen, but for now it was up to the colonies to devise their own symbols.

In Victoria, the organisers of the Centennial International Exhibition commissioned the design of an impressive exhibitors' medal to be produced in gold, silver and bronze. The chosen design featured Queen Victoria on the obverse; the reverse a two-part wreath consisting of wattle fronds and flowers, tied to English oak leaves and acorns by means of a 'true lovers knot', thereby symbolising the idea of unity and affection between the mother country and the colony.

This wasn't the first time that native flora had been used to symbolise Australian colonies. In 1838 a flowering period miscalculation on the part of Lady Franklin, wife of the Governor of Van Diemen's Land, meant that her plans to use Silver Wattle as an emblem had to be modified. Undaunted, she tied the blossom of Black Wattle to the leaves of Silver Wattle to achieve her desired effect!

In 1857 the design of the Sydney Mint gold sovereigns featured Queen Victoria with a wreath of banksia in her hair, but this was a suggestion which never took root. Wattle, on the other hand, had connections with the economic life of the colonies through its importance to the tanning industry. More importantly, perhaps, it had become a significant symbol of spring. The glorious displays of massed blossom could not fail to stir the hearts of native born and immigrants alike. Following the lead set by Adam Lindsay Gordon in the late 1860s, poets penned verse to the beauty of the bush, establishing it as the romantic ideal. Wattle, in those poems, was always golden, symbolising sunlight, spring and a golden future for the fresh new land.

By the time of Federation, wattle had become a symbol of everything positive to a young nation, and it followed quite naturally, in many minds, that as the genus (*Acacia*) was found throughout Australia it should be recognised as the national flower. It was popularly promoted as such, with National Wattle Day being observed as an occasion on which Australian national sentiment could be linked to a love of our beautiful flora.

Prime Minister Fisher responded to the public support for wattle by ensuring that it was included in a new Coat of Arms for the Commonwealth of Australia. Fisher was looking for a symbol of unity, and he found it in wattle. He saw no need to declare wattle (let alone a particular species of wattle) as our national floral emblem. National flowers were, apparently, things that grew naturally from the land and into the hearts and minds of the population.

The 1988 declaration of *Acacia pycnantha* was largely symbolic. Australians being Australians, and wattles being wattles, the announcement had little effect on the thoughts and actions of ordinary people. Bright yellow balls of fluff are wattle, whatever their species, and for most of us, if it's in flower, then it'll do. In 1999, when Governor General Sir William Deane picked sprigs of wattle blossom from the grounds of Government House to mark the tragic loss of Australians in Switzerland, he did so to provide a symbolic connection to Australia. The sprigs weren't *pycnantha*, but they were in flower.

From the top: Medal from the Centennial International Exhibition, Melbourne, from the website of Museum Victoria; Photograph of portrait of Lady Franklin - photographic print by J.W. Beattie and Amelie Romilly ca 1889, courtesy Crowther Library, Tasmania; A portrait by Sir William Dargie of Queen Elizabeth II wearing the famous 'wattle dress' was recently purchased by the National Museum of Australia - photo: George Serras; Commonwealth Coat of Arms - Permission to reproduce the Commonwealth Coat of Arms granted by the Department of the Prime Minister and Cabinet.

A gift of wattle

Margaret Clarke

Lynne Stone's amazing three dimensional models of Australian native plants were first seen in the Gardens in 2007 with her Blooming Threads exhibition. Warwick and Pat Wright were so impressed with her work that they approached the Friends Council to commission a botanical sculpture of *Acacia pycnantha* to give to the Gardens for permanent display in the Visitors Centre.

A phoenix flower

Creating a life-size three dimensional embroidery of *A. pycnantha* is a testament to ingenuity and artistry. Lynne's determination to recreate her near-completed sculpture after it was destroyed, along with her home, in the Marysville fires is inspirational.

With amazing cheerfulness Lynne says the enforced reworking of her sculpture was an opportunity to improve on her earlier work and incorporate the larger flowers evident on the spring blooms she found in Victoria.

Lynne was at home in Marysville on Black Saturday in February working on a piece for an upcoming exhibition when she knew she had to leave. With a box of her embroideries, her computer and, as an afterthought, a few clothes, Lynne escaped in her car with only an hour to spare before the fires destroyed Marysville. She had quickly assessed that her beloved bus, which had been her travelling studio and home for over 10 years of botanical study for her art, was not up to the job of escape vehicle. Sadly, it did not survive but Lynne already has plans for a new one.

Having left without even a mobile phone or her purse, and after the drama of finding an escape route, Lynne eventually reached the safety of relatives in Thornbury. For over five weeks after the fire swept through, Lynne says she was in a state of shock. Even so, she started straight out on the quest for replacement materials to start the wattle construction afresh. A sewing machine, threads, carpet yarn and other fibres, dyes and tools were all needed.

Although adjusting to being a recipient of charity was a challenge in itself, Lynne has been overwhelmed by the generosity of friends and strangers alike. Within two hours of hearing of her plight, Godfrey Hirst Carpets donated a reel of the required carpet yarn. Dyes were more difficult, with her usual supplier having also been burnt out in the fires, but help was quickly at hand and a precious donation of dyes was personally delivered by Dye-Chem Industries. Fellow members of the Embroiderers' Guild ensured Lynne had what she needed to be back at work in a matter of days. As part of the community's rebuilding, Lynne is now involved in the project to help design and build new units for the Marysville Retirement Village.

Lynne Stone, fibre artist

Lynne Stone's beautifully life-like three dimensional models of Australian native plants start as images scanned into the computer. An individual component such as a leaf will then be traced from the computer and heavily machine stitched onto organza with fine white rayon thread. Wire is added for the stems, then the leaves are 'painted' with textile dye and restitched with hand-dyed threads to add veins and special features such as insect damage. The *A. pycnantha* leaves presented a special challenge as their veins run vertically down the leaf making it difficult to control fraying on the leaf edges. The unveiling of Lynne's sculpture of *A. pycnantha* will be a highlight of the Celebrate Our Wattle Exhibition in September at the Gardens.



Top: Leaves of *Acacia pycnantha*; Middle: Lynne Stone with her box of work saved from the fires by her side, sample *A. pycnantha* leaves are in the foreground. Photos by Barbara Podger. Two Lynne Stone sculptures: *A. podalyriifolia* and *A. victoriae*.



Celebrate Our Wattle

Australia's golden emblem comes of age

The Friends in association with the Gardens present

An exhibition to celebrate the 21st birthday of the proclamation of the Golden Wattle as Australia's floral emblem

1 September to 11 October 2009

Drawing together the many ways wattle has featured in Australian art, botany, history and culture—
how it was used by Indigenous Australians and early settlers

its prominence in national symbols such as the Coat of Arms, stamps and coins

a reminder of home for Australian servicemen and women fighting overseas.

The exhibition will be complemented by a full program of Friends Talks, Guided Walks
a Living Display and School Holiday Sessions.

Check 'What's on' in this *Newsletter* and the Friends' website for details

The Australian National Botanic Gardens

Visitor Centre Gallery

9.00 am to 4.30 pm daily

An evolutionary tree of trees

Joe Miller

Acacia, the wattles, is the largest genus of plants in Australia with over 1,000 taxa distributed from tropical rainforests to the semi-arid regions. A large scale investigation of the evolutionary (phylogenetic) relationships of *Acacia* is underway at the Centre for Plant Biodiversity Research, a joint venture between CSIRO Plant Industry and the ANBG.

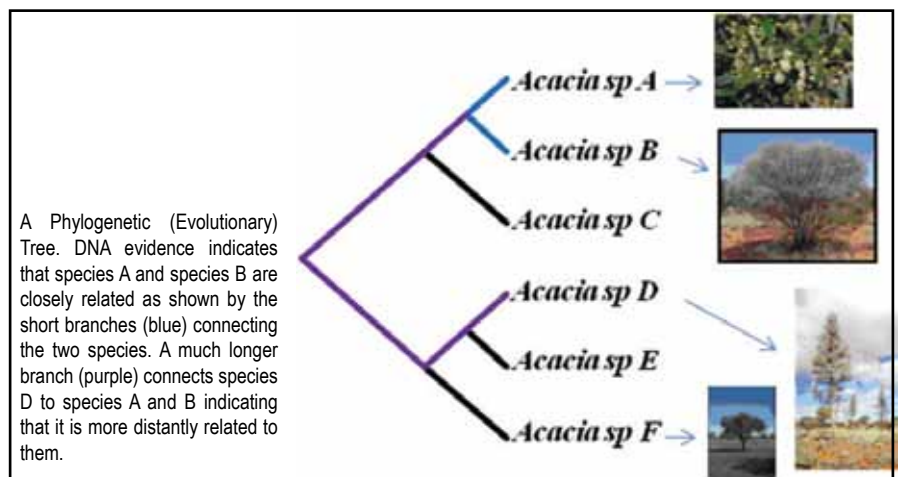
The goal of this long-term project is to use DNA sequence data to understand the evolutionary history of the genus. With this knowledge we can infer the changes in plant architecture, leaf form and biogeographic distribution of species over time.

We commonly represent these DNA sequence data as a 'phylogenetic tree,' a branching diagram with closely related species connected by short branches and more distantly related species connected by long branches.

Beginning on Wattle Day 2009, we will exhibit a live plant display in the shape of the latest phylogenetic tree with over 50 young potted wattle species arranged on the rockgarden lawn. Groups of related wattles will be connected by rope, where the length of rope between two groups will indicate the relative evolutionary relationships.

Visitors examining this display will be able to compare the wattles, to see the changes in leaf form and size. The plants will be labelled with information sheets and there will be information on the methodologies and goals of this research.

Joe Miller is the research leader at the Centre for Plant Biodiversity Research.



What's on at the Gardens

August - November



The Friends of the Australian National Botanic Gardens use the 'gold' coin donations received at each activity to support Gardens' programs and development. The Friends thank all those who have donated, and all those who will. The Friends especially thank the many speakers who volunteer their time and talents to further the knowledge of all who attend the events in the Gardens.

Please note: Unless otherwise indicated, talks are in the ANBG Theatre.

When bookings are required, phone the Visitor Centre on 02 6250 9540. Members who make bookings for events are requested, as a courtesy to their fellows, to notify the Visitor Centre if they are unable to attend.

Summaries or PowerPoint presentations of Thursday talks are available to Friends from the ANBG library. A donation to the Friends for the use of this material will be gratefully accepted.

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 on the Gardens' site at: www.anbg.gov.au or in the local press.

AUGUST

Thursday 6 August at 12:30 pm
'Daisies of the Southern Tablelands'
Geoff Robertson

Daisies are a fascinating group of plants, sometimes described as the most highly evolved of flowering plants. Geoff provides some insights that will assist in identifying daisies, a diverse family of plants.

Thursday 13 August at 12:30 pm
The Bernard Fennessy Memorial Lecture – 'The Eradication of Rabbits from Phillip Island'
Peter Coyne

In a five year study, Peter displays what can be achieved in rehabilitation by the removal of feral animals that had devastated the ecology of Phillip Island since 1793. With the removal of the last of the rabbits, the demonstrated effects are noteworthy.

Following this lecture there will be a short ceremony to award the **Bernard Fennessy memorial prize** to the winner of the 2009 'What's in a Name' competition.

Yarralumla Nursery Growers' Market Days—8.30 am to 3.00 pm approx
Saturday 5 September;
Saturday 3 October;
Saturday 7 November.

Thursday 20 August 12.30 pm
'A Walk Around the Lake'
Shirley Pipitone

Shirley expresses her creativity in the design of beautiful spaces for people to socialise, seek serenity and develop their fascination with nature. Share in her enthusiasm and love of our flora.

Thursday 27 August 12.30 pm
'A Biblical Garden'
James Haire

Professor James Haire talks about a special garden at the Australian Centre for Christianity and Culture in Barton. The garden has over half of the 140 plants of the Bible, each labelled with its botanical name, its common name and a Biblical reference.

SEPTEMBER

Friday 4 September 10–11 am
Bush Magic: Story Time in the Gardens

See Science Week for details. Gold coin donation.

Thursday 10 September 12.30 pm
'Plants vs Animals'
Dick Rowe

Veterinarian Dick Rowe talks about the interesting and quirky plant mechanisms that make life difficult for animals. For all interested in entrapment, subtle poisoning and long-term irritation.

National Science Week in the Gardens

Twilight Forest Adventures
Saturday 15 August
7.30–9.00 pm
and
Wednesday 19 August
7.30–9.00 pm



Shine a spotlight into the after dark happenings in the Gardens. Search for creepy crawlies on the rainforest floor. Try to spy our nocturnal wildlife in the tree tops. Turn on your torches with our twilight guides and discover a whole new world so close to the city. Free, bookings essential.

Bush Magic
Story time in the Gardens
Sunday 16 August 10–11 am
Friday 21 August 10–11 am
Sunday 23 August 10–11 am

Join us for a children's book in a Eucalypt nook for story time fun. Stories, songs and activities suitable for pre school aged children with parents / carers. Free, bookings not required, Eucalypt lawn.

Thursday 17 September 12.30 pm
'Reminisces on a Life of Collecting'
David Kilby

Well known to listeners to the ABC, David Kilby brings his friendly style of cheery presentation to both enliven and broaden our knowledge. It is a truism 'Once a teacher – always a teacher'.

Sunday 20 September 8.30–9.30 am
& 4.00 pm–5.00 pm

Yoga in the Gardens

Education Lawn

Enjoy yoga in the Gardens, with Avinashi, to rejuvenate your mind, body and soul during Floriade 2009. Bring your own mat and/or towel. \$10 per person, per session, bookings not required.

Monday 21 September to
Sunday 18 October
at 11 am and 2 pm each day

Spring Flower Walks

Join a free walk to take in the delights of the spring blooms in the Gardens, funded by the Friends. This year's display promises to be even more colourful than last year's. Meet at the Visitor Centre.

Tuesday 22 September 10 am
& Wednesday 14 October 10am
Tour of Parliament House Courtyard
Gardens
with Paul Janssens

Book early for one of these two special tours, open to Friends only (see page 12). Bookings essential (phone Visitors Centre on 62509540 or email: vc@anbg.gov.au) by 1/9/09 for September tour and by 25/9/09 for October tour. Provide your name, phone number and email address (if available), and the date you wish to book for. These details essential for Parliament House security. Arrive at Parliament House by 9.45am and meet in the entrance foyer beyond security clearance. Leaders: September tour is Alan Munns, October is David Coutts. They will help you get security passes from the security desk in the foyer.

Celebrate Our Wattle

Wattle Walks

Mon 31 August to Sunday 6
September
at 11am each day

Free one hour walks with our friendly volunteer Guides during the first week of the Celebrate Our Wattle Exhibition. No bookings required – just come along and discover the delights of our beautiful and fascinating wattles. Meet at the Visitor Centre.

Celebrate Our Wattle

Exhibition

Tuesday 1 September to Sunday 11
October 2009

See page 6 for details of the exhibition and come to four talks to hear all about four different aspects of the exhibition from the curators.

Curators' floortalks

Thursday 17 September 11 am
Thursday 24 September 11 am
Thursday 1 October 11 am
Thursday 8 October 11 am

An Evolutionary Tree of

Trees

1 September – 14 September

See page 6 for details

Wattle Day Talk

'The History and Relevance of
Wattle Day'

Tuesday 1 September 12.30 pm
Edwin Ride

Noted Acacia enthusiast, Edwin Ride, brings a spring message and a recounting of the path to recognition of our floral emblem. The Wattle Day Society, with a long history of the movement in Australia, has a justifiable claim to the elevation of the status of our wattles towards the ultimate proclamation of our floral

emblem.



Wattle Week Talk

'The Wonderful Wattle'
Thursday 3 September 12.30 pm
Suzette Searle

A dedicated science communicator, Suzette Searle admits to a consuming passion for Australian Acacias. As a forester with over 21 years involved with Acacia physiology and applications, Suzette brings with her a rich enthusiasm for the subject.

Meet the Maker

Saturday 5 September, and
Thursday 10 September
10-11:30 am and 2-3:30 pm.

Lynne Stone

Lynne demonstrates her sculptural botanical embroidery in the morning and in the afternoon demonstrates and discusses the materials and methods used to create her three-dimensional embroideries. Bookings, at the Visitor Centre, are essential with a payment of \$10 per person, \$5 for Friends. Proceeds, generously donated to the Friends to support ANBG projects.

Garden Guru

David Taylor

Tuesday 15 September 2–3.15 pm
What to do with Wattles in your
Garden

Friday 2 October 10.30–11.45 am
'How to' Guide to Wattles

Come and join Gardens horticultural manager, David Taylor, in September as he explores the world and pruning of wattles (you'll be surprised by how far he goes). And in October he gives a practical guide to growing and maintaining wattles. Short active walk required. Wheelchair and pram accessible. \$5 per person; \$4 Friends of the Gardens, bookings required.

Thursday 24 September 12.30 pm
'Insects and their Feeding Habits on Plants'

Paul Cooper

These feeding habits are an environmental pressure often overlooked in assessing plant survival. Paul Cooper shows us some of these often bizarre forces, many of which have only recently been evaluated.

Sunday 27 September 8.30–9.30 am & 4.00–5.00 pm

Yoga in the Gardens

Education Lawn

See 20 September for details

School Holiday Sessions

Every day from Monday 28 September to Friday 9 October (except Monday 5 October)

Three sessions: 10–11 am, 11.15–12.15 am and 12.30–1.30 pm
Bookings necessary, limited numbers, parent supervision required. \$8, \$6 (Friends of the Gardens) per child, per one hour session. For a full program of events during Spring school holidays, go to: www.anbg.gov.au closer to the date.

OCTOBER

Thursday 1 October 12.30 pm
'Recent Developments in Conservation in Eastern Australia'

Bob Makinson

Botanist and long-time supporter of the Friends, Bob brings us a scientist's view of crucial developments in short and long-term conservation strategies and activities in the eastern States.

Friday 2 October 10–11 am
Bush Magic: Story time in the Gardens

For details see Science week activities in August. Gold coin donation.

Breakfast with the Birds



Photo by Margaret Clarke

September:

Sunday 20

Saturday 26, Sunday 27

October:

Saturday 3, Sunday 4, Monday 5

Saturday 10, Sunday 11

Saturday 17, Sunday 18

Meet at Visitor Centre at 7.30 am

This is the sixth year of this extremely popular program. Each year over 150 visitors enjoy the Gardens, the great breakfast and the birds. Spring nesting and bird activity is at its peak, with lots to see and a good opportunity to observe birds, in beautiful surrounds in the early morning.

If you have a personal group of 10 or more, and the above times, or dates, do not suit, please contact Louise Muir (62816295) as it may be possible to negotiate an alternative time/date outside those offered.

Book early as numbers are limited, and spaces fill quickly. Bird walk and sumptuous breakfast is \$30.00 per person, \$27.00 for Friends. Bookings and payment may be made by phoning the Visitor Centre on 6250 9540. Pre-payment is ESSENTIAL by credit card, cash, cheque to the 'Friends of the ANBG' Enquiries: Louise Muir 62816295.

Thursday 8 October 12.30 pm
'Magic Moments and Musical Musings'

Annie Sloane

Admired by ANBG Summer Concert goers, Annie brings us songs that celebrate Australia's wattles. Many of us, of a certain age, will recall some of these songs of our youth.

Thurs 8 to Sun 11 October

BGANZ Congress

Mackay, Queensland

The annual Botanic Gardens of Australia and New Zealand Congress is being hosted by Mackay Regional Botanic Gardens. Details at www.wombatcreative.com.au/bganz.htm.

Saturday 10 October 9.30 am

Chippendale Walk on Black Mountain

Peter Ormay

Meet at Caswell Drive entrance to Black Mountain

Sunday 11 October 10 am and 1 pm
Orchid Walks on Black Mountain

Tony Wood

Meet at Caswell Drive entrance to Black Mountain. Limit 15 people each walk. Bookings at Visitor Centre.

Thursday 15 October 12.30 pm
'A Life with Australia's Native Plants'

Pamela Finger



Through photos and a commentary Pamela traces her introduction to Australian plants by her grandfather, and through organisations, people and places that furthered her interest. The talk concludes with a photographic stroll around Fingers' garden which will be open for viewing the following weekend (17-18 October) as part of the open garden scheme (see Friends Briefs page 12).



Photo from website of Embassy of Japan, Canberra

Each year since 1992 the Gardens has received hundreds of yellow ribbons as a gesture of friendship from the Acacia Appreciation Society, Hiroshima. It is said that a wattle was the first plant to bloom after the atomic bomb destroyed Hiroshima in 1945.

Friday 16 October – Thursday 12 November

Schools' Photographic Competition exhibition

Photos from the Friends' annual competition for students at Canberra's primary and secondary schools and colleges. Free, Visitor Centre Gallery.

Sat 17 October 8.30 am–2 pm

**ANPS Spring Plant Sale
Southern Carpark, ANBG**

Your opportunity to buy plants grown by Australian Native Plant Society members. Wide range of plants available, including local species and cultivars suitable for Canberra. Details and plant list at: <http://nativeplants-canberra.asn.au/sales.htm>.

**Saturday 17 & Sunday 18 October
10.00 am to 4.30 pm**

Open Garden

10 Rechner Place, Flynn

Pamela and Noel Finger's garden has a framework of mature Eucalypts, providing a backdrop for a native garden which features Tasmanian and WA plants. There will be a wash of orange and purple with local pea flowers in bloom. Native hibiscus, prostantheras and scaevolias provide a purple focus in the courtyard. Sit in a pergola and enjoy the sound of water, or wander along the garden path with rocks to rest on along the way. (Part of the proceeds to the Friends.)

Tuesday 20 October 11.00 am

Happy 39th Anniversary ANBG

Staff and Friends of the Gardens are invited to celebrate 39 years since the official opening of the ANBG. Free, RSVP 6250 9540.

Thursday 22 October 12.30 pm

'The Vegetation History of Antarctica'

Liz Truswell

At the request of many of the Friends, palaeontologist and communicator Liz Truswell, now armed with more information, expands her talk on the previously rich vegetation history of Antarctica.

Thursday 29 October 12.30 pm

'The Management and Importance of the ANBG Orchid Collection'

Mark Clements

The ANBG glasshouse contains a collection of orchids, many the subject of intense study. Despite some controversy, positive outcomes of recent negotiations may enable this collection to continue as a scientific collection and as a draw card to visitors to the ANBG. Mark discusses some of the issues involved.

NOVEMBER

Thursday 5 November 12.30 pm

'Birds'

Dick Schodde

Scientist Dick Schodde talks of his interest in the study of Australia's rich bird life, going hand in hand with the study of plants. The ANBG provides a venue for many a professional ornithologist or amateur bird watcher to actively engage their interest.

Friday 6 November 10–11 am

Bush Magic: Story time in the Gardens

For details see Science week activities in August. Gold coin donation.

Thursday 12 November 2009

'The Canberra Arboretum – 2013 and beyond'

John Mackay

Many Friends are interested in the siting and development of Canberra's International Arboretum and Gardens. John expresses his dream for its future, giving us a better understanding of what is involved, from the person best able to convey the message.

Monday 16 November – 30 January

Replant exhibition

Free, Visitor Centre Gallery

Thursday 19 November 12.30 pm

'Charles Darwin – Botanist Extraordinaire'

Rosemary Purdie

In February three talented speakers presented short talks associated with Darwin's birthday. Rosemary Purdie, one of those speakers, has been requested to further talk about Charles Darwin as a botanist.

**Saturday 21 & Sunday 22 November
10.30 am to 4.30 pm**

Open Garden

10 Wickham Crescent, Red Hill



The Walcott garden is an expansive young native garden with over 4,000 plants representing more than 600 different species. Heritage pines, a wildflower meadow and three large ponds occupy a hectare of land. At this time there will be many callistemons, grevilleas and leptospermums in bloom as well as *Viminaria juncea*, the native broom, with its yellow pea flowers hanging over the pond. Refreshments will be available in the gazebo. (Part of the proceeds to the Friends.)

Thursday 26 November 12.30 pm

'Fungal Illustration – 600 Odd Years'

Heino Lepp

The intriguing study of fungi, presented by Heino earlier in the year, is greatly enhanced in this talk by images over six centuries. Heino, also a photographer, conveys information that not only broadens our understanding but gives us a good chuckle!

Message from Warwick Wright, Convenor Activities Committee

The Friends 2009 lecture series ends in November. The Activities Committee thanks the many wonderful speakers, those who volunteered assistance during the year and all the many loyal supporters who turn up to nearly every lecture.

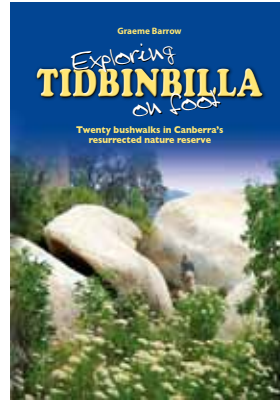
From the Bookshop *Tom Butt, Shop Manager*



Lost gardens of Sydney
by Colleen Morris
Historic Houses Trust of
NSW, 2009
Paperback, 160 pages,
colour photographs
throughout.
ISBN: 978 1 87699 129 6
RRP: \$49.95

This beautiful book, published by the Historic Houses Trust of New South Wales, is lavishly illustrated with over 170 full-colour images, including some wonderful reproductions of Ellis Rowan works and quite a few old maps of Sydney. It is an extensive history of old gardens that have now been replaced, often by multi storey buildings.

Lost Gardens explores Sydney's rich and diverse gardening heritage, much of which has been lost to our growing need for real estate. Discover the fascinating history of Sydney's lost gardens and garden styles, from the native bush and significant early colonial gardens to corporate rooftop gardens and threatened gardens of today.



Exploring Tidbinbilla on foot: twenty bushwalks in Canberra's resurrected nature reserve
by Graeme Barrow
Dagraja Press, 2009
Paperback, 52 pages, colour
photographs and maps
throughout.
ISBN: 978 0 97753 282 7
RRP: \$19.95

We have been waiting for another of Graeme's wonderfully informative texts on walking in and around the ACT. And here it is!

The Tidbinbilla Nature Reserve outside Canberra in the Australian Capital Territory was almost destroyed in the 2003 bushfires. Since then energy and money have been expended on works to restore the reserve to its former standing as an enjoyable place to visit for recreation, family gatherings and education. Recovery programs for threatened wildlife are conducted there. This book describes twenty bushwalks within the reserve or just outside it. They vary from easy to hard.

The Botanical Bookshop

Friends are offered a 10% discount: on purchases over \$10, on production of your current membership card, to the person whose name appears on the card. No discount is given for items marked 'Red Spot Specials'. There are four free (30 mins) parking spaces for customers. We will post books anywhere! Bookshop webpage: www.botanicalbookshop.com.au



Banksia speciosa watercolour by Nilivan Adams

Botanic Art Groups' exhibition

The second art exhibition of the Friends Botanic Art Groups held during the first two weeks in April attracted around 2000 visitors and was very popular with those wishing to acquire quality botanical art at very good prices. *Art in the Gardens with Friends* featured 98 paintings and drawings, representing the work of 28 members of the art groups.

The display was opened on Tuesday 31 March 2009 by Marlena Jeffery, Patron of the Friends. Helen Fitzgerald, well-known local artist, was guest artist and Anne Phillips, an employee of the gardens, exhibited some of her exquisite handmade silver jewellery.

Forty paintings and over 550 cards were sold and a commission of 20% on works sold was donated to the Friends. The art groups thank Barry Brown who designed the posters, flyers and invitations for the exhibition, Gardens staff for publicity and Visitor Centre staff for their assistance.

Charles Darwin, observant gardener

Max Bourke AM



Down House and Darwin's glasshouse. Photos by Max Bourke



Charles Darwin was a brilliant observer. Although most famous for his insights from the Voyage of the Beagle his practice of observation began, was nurtured and continued in the garden, the potting shed, the lawns and fields around his house. He may have avoided calling himself a botanist but there is no doubt we should admit him as a gardener.

Many of Darwin's theories began with the sorts of reflections that those of us who have spent time pulling up weeds, raking leaves or watering dry beds will be familiar with. They are as mundane as 'I wonder why that plant grows that way in that place' to 'why is this flower that colour and shape', or 'what are those ants and insects doing'? But the difference between those of us who ask these questions and Charles Darwin, is that he set out to answer them.

Charles Robert Darwin was born into a wealthy family used to gardens and gardeners. We know from his sisters that the young Darwin was fascinated with plants. In a portrait at the age of six he is shown holding a pot plant where the normal pose for a 'young master' would have been on a rocking horse or with dogs and small ponies.

While a student and traveller, Darwin would have had little time or opportunity for gardening. But by 1842 *The Journal of the Voyage of the Beagle* had been published, he had sketched his core idea in the great diagram 'I Think' and was married to his cousin Emma. Anxious to protect Emma from any adverse reaction to his contentious theories, Darwin sought to escape London where he was caught up in the whirl of scientific meetings and socialising which he clearly did not like. When he and Emma purchased Down House in Kent it was a flight we recognise today as a 'treechange'.

He quickly set about developing the garden by planting large flower beds and later developing a small orchard, then a kitchen garden and a composting pit for cow manure. His research was personal and up-close. Working in the fields around his home as well as in his garden and greenhouse he relied on his gardener, his children and their nanny to help with his observational experiments. Those observations were duly recorded in notebooks and worked over in the study to become his corpus of botanical thought.

In his *Experiment Book* of 1856 he details the work undertaken in his garden. He created what he called a 'weed garden'; what later became known by agronomists and plant taxonomists as a quadrat. He fenced off an area of turf from his orchard and completely cleared it and studied it meticulously to see what grew back and in what order. What occupied this space gave him some idea of how species might make new niches for themselves.

Darwin's botanical interests, nurtured in the garden and glasshouse, are given their intellectual expression in six botanical books of great importance: *Fertilisation of Orchids* (1862), *Climbing Plants* (1865), *Insectivorous Plants* (1875), *Cross and Self-Fertilisation* (1876), *Forms of Flowers* (1875) and *Power of Movement* (1880). These works, though overshadowed by *The Origin of Species*, laid the foundation of much of today's botanical thought.

He was working with plants still common in many gardens: Plumbago, Dipladenia, Clematis, Primula, Hoyas, Hibbertias and Clerodendrons to name a small selection. He did meticulous studies on their germination, growth, form and habits, their reproduction and responses to all manner of light and temperature regimes.

Darwin's botanical work on the sexual reproduction of plants was crucial, not only to his development of the

theory of natural selection but to the huge body of scientific work that flowed from his discoveries in how plants work. Though Linnaeus showed 100 years before the basis of sexual reproduction in plants, his work tended to support self-fertilisation. For Darwin's theory to work, outcrossing was essential. To Darwin, the flower, its adaptations to its environment and, more particularly, its adaptations to forms of fertilisation by insects, became a pillar supporting evolution.

When Darwin's children gathered armloads of *Primula acaulis* (the English primrose) he noticed that two types of flowers, one with a long style and one with a short style, occurred in a 50:50 ratio. In experimental crossings in his potting shed he showed that maximum fertility came from hybridisation whereas the self fertilised flowers had reduced fertility. His discovery of what is called 'heterostyl' was part of an extraordinary three month period in May to July 1860 when he made three outstanding observations that changed our understanding of evolutionary biology. The other two were the mechanism of pollination in orchids and the functions of insectivorous plants.

The beautiful little Kent native orchid, *Orchis mascula*, was observed by Charles and Emma while picnicking. Darwin imitated, using a pencil, the proboscis of an insect to show how it picked up the pollen mass and transferred it to another flower. All of this was part of his building the case for co-evolution between orchids and insects.

While England is not the epicentre of orchids it does have over 40 species and Kent has many of those in its fields and hedgerows. Darwin was fascinated by them and delighted with the numerous specimens from all around the world that he was given and cultivated in his hothouse. One of his extraordinary insights on orchids led him to predict the characteristics of insects which pollinated them. *Angraecum sesquipedale*, a beautiful Madagascan orchid he had been sent, gave him an insight into the relationship between insect and plant that formed his views on co-evolution. He wrote:

..it had a whip-like green nectary eleven and a half inches long with only the lower inch and a half filled with very sweet nectar...in Madagascar there must be moths with proboscis capable of an extension to a length of between ten and eleven inches!

Sure enough in 1903 Morgan's Sphinx Moth was discovered in Madagascar and its proboscis does just that.

Don't think of Darwin as a disconnected intellectual giant, even though he clearly was a genius; there is certainly no evidence that he ever thought of himself this way. Think instead of him as a gardener who paid attention to the world around him.

Edited version of a lecture to Friends of the National Library of Australia and Australian Garden History Society, June 2009

New signs coming



Botanic Gardens are no different from other attractions in using signs to raise visitors' awareness of activities, services and facilities, to help them navigate the site and encourage learning.

From late winter/spring visitors to the Gardens will be welcomed by a new primary information sign and landscaping at the café bridge precinct. This will improve access to the rainforest gully, open up the main pedestrian entrance to the Gardens and accommodate upgraded information signage.

As visitors wander the main path they will be greeted by four new information signs (early concept design pictured). These three panel secondary information signs list the Garden highlights, focus on activities in that area and briefly introduce the nearby plants. The signs are designed to complement the Visitor Guide and Map.

In addition, new directional signage has been developed with 65 poles with directional blades installed throughout the Gardens. Although handsome and aging well, the previous dark green modular signage was inflexible and couldn't effectively handle multiple directions. They also had a tendency to be lost in the foliage due to their height and colour.

Finally, the icing on the cake for any attraction is education and interpretation. New Rainforest Gully interpretive signs have been developed to replace the existing set of panels which are at least 20 years old. The panels are designed to provide up to date information about the rainforest gully and plants; encourage visitors to observe and use a range of senses in the natural environment; and reinforce messages about environmental behaviour.

Effective signage will help visitors move confidently through the Gardens and encourage exploration of the upper reaches knowing that they will be able to find their way back to the car park and Visitor Centre precinct.

Concept Designs from Couch Creative

Friends recommendations on ANBG Management Plan

In March 2009 the Friends made a submission to the Gardens about their ideas for the new Management Plan. The following is a summary of the submission. The full submission is on the Friends' website at <http://friendsanbg.org.au/manageplan.pdf>.

Preparation of the new ANBG Management Plan is happening at a crucial time in the history of the Gardens and the Friends welcome the opportunity to contribute. Our intention in these comments is not to dwell on present problems. Nevertheless, a new management plan needs to face the reality of present conditions and plan for recovery. There are some indications that a corner may have been turned and the Friends are more confident about the Gardens' future than we were 18 months ago.

The existing management plan made many sound commitments, such as developing a theme on the evolutionary origins of Australian plants, redeveloping the old nursery site and creating a new Visitors Centre in a more appropriate location. Those, and many other, sensible ideas have not been acted upon. It is vitally important that the new management plan addresses the necessary commitment, especially by Government, to ensure the delivery of such good proposals.

Vision and mission

- The primary aim of the Gardens is to be a world-class botanic garden, with a well-maintained and interpreted living collection, widely representative of the Australian flora
- The research capacity of the Gardens must be re-established, along with a long term commitment to adequate funding, with adaptation of native flora to climate change as a major component of such research
- The Gardens should play a central role in coordinating the resources of botanic gardens and researchers around Australia
- Emphasis must be given to promoting the Gardens as a place to visit and learn and to establishing it as one of the key national institutions in Canberra

Living collection

- The Gardens should be a *Gateway to Australia's Native Flora*, to educate visitors and the wider community
- Areas of the Gardens that are degraded must be restored in line with the priorities of the new Management Plan

Major projects

- Top priorities for infrastructure projects must include securing the water supply, redevelopment of the old nursery site into a major feature, construction of a new Visitor Centre located as the entrance to the Gardens and a new display glasshouse well located for visitors

Governance

- An Advisory Council should be established without delay to provide independent expert and community advice to management
- The Gardens should be restructured as an independent statutory authority or, at the very least, as an Executive Agency within the appropriate Commonwealth Department

External funding—sponsorship and philanthropy

- External funding for major projects will be necessary in the future and Governance changes along the above lines are a necessary precursor – such external funding must not be seen as covering operational expenditure, which should be provided by the Government at the level needed to operate the Gardens effectively

Support for Friends and volunteers

- Support for the Friends should continue at least at the levels in the current Management Plan – including re-establishing a major role for management in the training of guides and other volunteers

Visitor experience

- Attracting visitors to the Gardens and giving them a rewarding and educational experience is most important
- The summer concerts must continue as a major part of the calendar and with Management support
- Signage in the Gardens is poor and must be dramatically improved as soon as possible
- The resources devoted to education, especially of young people, must be significantly increased and the Gardens should be seen as one of the key national institutions for young people to visit as part of their curriculum

DVD from the Friends



Impressions of a year in the Australian National Botanic Gardens



A series of photos of flowers as they bloom, season by season, throughout the Gardens. A slide show to be played on a TV or home computer. The DVD is available through the Botanical Bookshop at the Gardens at a cost of \$10. The DVD can also be ordered through the Botanical Bookshop on: www.botanicalbookshop.com.au

Garden Shorts

From the Director

It is easy in these challenging times to forget how lucky and privileged we are to be part of something that is wonderful like the ANBG and are around at a time when there is a real opportunity to do something for future generations and make it even better. The temptation however is always to focus on the empty half of the glass instead of the full half. We all do it. 'we used to

'if only we could ...' are phrases heard often both among passionate staff and supporters.

Of course it is totally understandable ... staff are doing a great job of not only keeping things going, but critically evaluating what they are doing and making the most of our own experience and that of others in reviewing what we do and how we do it. That takes courage. Friends are doing their utmost in much the same vein – keeping going with what they know while wondering if things will need doing differently in the future. I am very pleased that a strategic planning session is planned by the Council for the Friends this year – this will complement the Gardens management planning process and provide an opportunity for all Friends to think how best they can respond to the changing times.

When feeling overcome by the 'has beens' and the 'possibilities' I have found that it can be useful to have or take the opportunity to visit and talk to other gardens. It can remind us that the ANBG is still a beautiful place, which is also an incredible and unique collection of indigenous plants where we can both learn and teach people about Australian biodiversity. It can also remind us that we are not alone – the challenges of others may be a little



different but no less difficult. Nothing worth doing is ever easy.

This is an exciting time where we can make a difference for the future – lets all remind each other every now and then that our glass is half full, not half empty. The ANBG is more than worthy of it and deserves that positive approach!

Anne Duncan

Non-potable water for irrigation

The ANBG has received welcome news from the National Capital Authority, that it would provide a temporary abstraction licence for Lake Burley Griffin for the ANBG. This was the result of successful discussions between the ANBG, NCA and the ACT government and means that the ANBG's water infrastructure improvements can finally go ahead.

The separation of the internal potable and non-potable water infrastructure is likely to be underway by spring and this will be followed by construction of a pipeline between Lake Burley Griffin and the ANBG in early 2010.

Education all over

They came from all over Australia. From Wickepin in the West to the suburbs of Sydney, 11,000 students from schools across Australia enjoyed an educational experience in the ANBG last financial year – a truly national botanical education program.

40th birthday calendar

2010 is the 40th anniversary of the official opening of the Canberra Botanic Gardens by Prime Minister John Gorton on 20 October 1970. Now the Australian National Botanic Gardens, we plan to commemorate this anniversary with a range of events and the publication of a calendar, containing beautiful photos and historical bits and pieces. The calendar is now available from the Botanical Bookshop and makes a wonderful gift and memento of the Gardens.

Consulting the nation

Consulting the local and national community is an important part of the ANBG management planning process. During April and May, discussions on current perceptions of the ANBG and expectations of a national botanic garden were held with community members across Australia.

In addition, a comparative study of six capital city botanic gardens was undertaken so as to conduct an in-depth examination of the work and profile of the ANBG.

Some of the findings from the national consultation are reported in the monthly management planning newsletter. If you would like to subscribe to the newsletter and keep up to date with the management planning process, please send an email with your name/s and information about your town/city of residence to: anbgplan@anbg.gov.au

Lucy A. Sutherland

Friends Briefs

Celebrations ahead

2010 is a big year for celebrations. The ANBG will celebrate its opening 40 years ago, and the Friends will celebrate our 20th birthday in October. A Birthday Celebration Committee has been formed with Garden staff, and Louise Muir and Andy Rawlinson from the Friends. We are looking for ideas on how the Friends can celebrate, hopefully with activities throughout the year. If you, as a Friend, have some ideas, we would love to hear from you. Please contact Louise Muir on 6281 6295, email: loumuir@netspeed.com.au

Visit Parliament House gardens

For most visitors, the internal courtyard gardens at Parliament House are seen from a distance, looking down from the public areas. Friends now have a rare opportunity to see the gardens close up. This springtime Paul Janssens, now Assistant Director of Landscape Services at Parliament House, will lead tours of these gardens for Friends of the ANBG.

Two dates are available: Tuesday 22 September and Wednesday 14 October. The tours start at 10 am and will last about two hours. This event is for Friends only. Reservations are essential. See 'What's on at the Gardens' for details.

Bernard Fennessy honoured

We are delighted to report that a street in the new suburb of Forde is to be known as Fennessy Way in recognition of the community service contributions of the late Bernard Fennessy, including as a Guide in the Gardens.

Growing Friends



Photo by Steve Speer

Growing Friends autumn sale was a great success—most of the 1300 plants sold by 9.30 am. It is very pleasing to see 'the fruits of our labours' so eagerly sought by people who value the uniqueness and beauty of Australia's indigenous flora.

Growing Friends will be busy during the winter months replenishing stock and continuing to learn more about the propagation of ground covers, climbers, shrubs, container plants, trees and their suitability for the Canberra and coastal regions.

At the next sale we hope to have good stocks of *Austrodanthonia laevis* (wallaby grass), *Bauera rubioides*, *Hibbertia pedunculata* and *Myoporum parvifolium*. Check Friends website for date of next sale.

Open gardens

The Friends of ANBG have been generously offered a share of the proceeds from two open gardens this year; the garden of Pamela and Noel Finger on the northside (open 17 and 18 October) and of Ben and Ros Walcott in South Canberra (open 21 and 22 November). The Friends will be on the gate, provide guides and sell refreshments. A proportion of the gate takings and all proceeds from refreshment sales will go to the Friends. The Friends express their gratitude to both donors for their generous support.

Volunteers able to assist at the Open Gardens should leave a message at the Friends Office (6250 9548) or email: info@friendsanbg.org.au. See 'What's on at the Gardens' for details.

Breakfast with the Birds

This spring, the Friends are again offering the opportunity to enjoy the Gardens in the early morning, with some bird watching and a great breakfast. See 'What's on at the Gardens' for details. Book early – last year's event was sold out.

Inaugural Catherine Blakers Award

The Volunteer Guides have established an award in memory of the late Catherine Blakers. It is to be given for contributions over the previous year to the Scribbly Gum Book, which Catherine began, and to the 'Show and Tell' part of the Guides' monthly meeting. The Scribbly Gum Book is a collection of articles and cuttings provided by Guides for the information of the group. Congratulations to the inaugural winner—Norman Morrison.

Wattle hosts wanted

Help the Friends celebrate our Golden Wattle coming of age. Hosts are required for two hour sessions to meet visitors in the Celebrate Our Wattle Exhibition. Each host will receive training and have reference material on hand. Please contact Warwick or Pat Wright on 6281 3088 or email: warwickwright@netspeed.com.au



Support the Friends, buy a card

A beautiful *Patersonia occidentalis*, painted by Nilavan Adams and donated to the Friends, graces a card for sale in the Botanical Bookshop. Please support the Friends by buying a card for birthdays and other special occasions.