

Friends of the Australian National Botanic Gardens

# NEWSLETTER

Number 58 March 2008





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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 no later than the first week of June for the July issue; September for the October issue; and February for the March issue.

Post material to the Newsletter Committee at the above address 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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# Time to Start Writing!

for the Bernard Fennessy  
'What's In A Name?' Award 2008



Photo by Murray Fagg

Entries are now invited for this year's 'What's in a name?' Award. Established in 2006, this annual \$500 award commemorates the late Bernard Fennessy's love of the Gardens, his enthusiastic service as a volunteer, and the long-running series of articles he wrote for this newsletter, entitled, 'What's in a Name?'. See Friends Newsletter no.54 November 2006 for Bernard's obituary and the Friends website at: [www.anbg.gov.au/friends](http://www.anbg.gov.au/friends) for all of Bernard's articles. Last year's winning entry (*Boronia molloyae* – photograph) was published in Newsletter no.56 and the two runners-up are in this issue.

## Things you need to know:

- Entries should describe a living plant\* within the ANBG.
- Entries should generally be in the style of articles written by Bernard Fennessy; that is, describe the origin of the plant's name and, if applicable, the background of the person after whom it is named.
- Maximum length 800 words. A good quality photo of the plant would be very welcome.
- Only one entry per person. Entrants should be members of the Friends of the ANBG.
- Closing date is 9 May 2008.
- If possible, entries should be submitted by email to: [friendbg@netspeed.com.au](mailto:friendbg@netspeed.com.au). If that is not possible, then by mail to What's in a Name Award, Friends of the ANBG, GPO Box 1777, Canberra ACT 2601.
- Entries should not describe a plant which was the subject of an article by Bernard or was featured in articles published in the Newsletter as a result of the 2007 Award. A list is on the board in Friends lounge and on Friends website at: [www.anbg.gov.au/friends](http://www.anbg.gov.au/friends).
- Entries will be judged by Prof Ralph Elliott. Botanical accuracy will be checked by ANBG staff.
- The winning entry will be published in the July 2008 Newsletter. Other entries may be published in subsequent Newsletters or on the Friends website.
- The award of \$500 for the best entry will be presented at the Second Bernard Fennessy Memorial Lecture at 12.30pm, 14 August 2008, in the ANBG Theatre.

\* the Living Plant database on ANBG website may be useful at: [www.anbg.gov.au/cgi-bin/vic](http://www.anbg.gov.au/cgi-bin/vic).

Queries to: Doreen Bowdery at [doreen.bowdery@anu.edu.au](mailto:doreen.bowdery@anu.edu.au)

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# A Challenging Year

## Report of 19th AGM of Friends of ANBG

The following is an edited version of the report by Alan Munns, President of the Friends. The full report is at: <http://www.anbg.gov.au/friends/presreport08.html>.

Towards the end of 2007 it was increasingly clear that government funding for the Gardens was inadequate and not keeping pace with increasing costs. Staff numbers had fallen and the Gardens was suffering. Matters came to a head with the start of an internal organisational review which looked as though it would lead to more staff cuts and reduced maintenance.

An intensive public campaign was mounted by the Friends to demonstrate to government the very high levels of community support for the Gardens. We are heartened by the response. We have been told that the organisational review will not proceed further, that existing staff numbers will be maintained, that additional funding will be provided for higher water costs, and that reforms will be pursued in the context of revising the Gardens' Management Plan. The Friends have been promised a role in that process and we look forward to participating.



Campaign postcard

Dear Minister

The Australian National Botanic Gardens is a national treasure-house of Australian flora. Sadly, in recent years it has been starved of government funds. Staff numbers are now too low to properly maintain the Gardens. There is a real risk that this unique living collection will be allowed to further decline.

You now have a great opportunity as Minister responsible to turn the situation around. Please act urgently to:

- provide adequate funding to properly maintain the Gardens' plant collection, and
- set up a wide-ranging, independent and expert inquiry to chart future directions.

Yours sincerely

(signature)

(name)

The Hon Peter Garrett AM MP  
Minister for the Environment,  
Heritage and the Arts  
Parliament House  
CANBERRA ACT 2600

Other particular challenges faced by the Friends included finances and the concerts program.

The Friends had agreed to provide up to \$100,000 for Friends' projects in the Gardens for the three years 2006-08. Council has been disappointed and frustrated that the Gardens has not, so far, been able to use those funds. The Friends' Projects Sub-committee has been re-formed to work with management on guidelines and

processes for selecting projects for future funding. Council will give this the highest priority in the coming year.

The highly popular summer concert season is the Friends' main fundraising activity. Disappointingly, Gardens' management reduced the length of this season from ten to four evenings. Friends' Council will argue strongly for a significantly longer season in 2009 and will examine options for musical and other social events in the Gardens.

### New Initiatives

A Botanical Resource Centre is being created to help users identify plants. The Friends are providing up to \$10,000 towards fit-out, with reference materials provided by the Gardens and a donation of IT equipment by Volante. Volunteer facilitators are being trained.

Interest in painting and drawing in the Gardens has been so great that a second Botanic Art Group was formed in 2007. The groups will hold their first exhibition and sale of work in the Visitor Centre 4-16 March.

Twelve very high quality entries were submitted for the inaugural Bernard Fennessy 'What's in a Name?' Award, established to remember our late friend Bernard. Congratulations to Sue and Byron Serjeantson, for their winning entry. (See page 2 for this year's competition.)

During the year we were honoured that Her Excellency Mrs Marlena Jeffery agreed to become our Patron. Her Excellency opened the Rock Garden Shelter; the first project to be funded from the Friends' Public Fund.

### On-going Activities

- Warwick Wright and the Activities Sub-committee continued to arrange fascinating lunchtime lectures.
- Growing Friends met regularly to learn propagation techniques, with proceeds from their plant sales going to the Friends.
- For the spring and summer season, the Guides increased their walks to three a day, a huge commitment for a group of only 50 guides.

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New membership brochure



## A Challenging Year (cont.)

- The database for our 1400 members now runs on a new computer funded through the Commonwealth's Volunteer Small Equipment Grant Program.
- The eleventh annual photo competition for school and college students again produced stunning entries.
- The Social Sub-committee, led by Louise Muir, organised a full calendar of events, a Twilight Dinner, Breakfast with the Birds, a screening of original films by Matthew Higgins, and Grazing in the Gardens.
- The Friends website, managed by Shirley McKeown, provided information about Friends and the Gardens.

## A Time to Say Thank You

Alan concluded his report with thank yous.

'I would like to express my gratitude to Council members for their unqualified support for the Friends. All are involved in sub-committee meetings and give countless hours of individual work. I thank them all for their dedication, for their time, for their friendship and support.

'I'd also like to thank Gardens' staff for their enthusiastic support, help and friendship. This has been an emotionally stressful year for all Gardens' staff and the Friends have admired their positive approach to the challenges we have all faced. We look forward to continuing our constructive and productive relationship into the future.'

Don Beer moved, and the meeting enthusiastically supported, a vote of thanks to Alan for his tireless work during the year, praising his judgement and level-headedness in difficult times.

## Director's Report

Anne Duncan reported that the past year had been 'interesting and challenging', but she expressed the hope that things will remain exciting so that we will all continue to feel challenged by new opportunities. Anne praised the staff and noted that the summer rains had provided a boost to morale, and the budget, as well as the plants!

During the year the Gardens was involved in completing the draft of a national strategy for climate change adaptation for Australia's botanic gardens, and elements are already being implemented. She also noted that 17,000 students had been through Gardens education programs, that the Tasmanian Basin viewing deck, the new bridge on the main path, and the Friends shelter had all been completed.

The coming year will see the start of the search for a new vision for a modern ANBG through the review of the Management Plan, 'one which will ensure we are engaged in the challenges of the nation, one which will inspire

and enrich the nation, well beyond our site in Canberra'. Anne encouraged the Friends to consider the national role of the ANBG and to take advantage of opportunities

## Guest Speaker

Rosemary Purdie gave a fascinating illustrated talk—'Two botanical gardens and the plants in between'—based on her recent trip through Western China and Tajikistan.

The first of the two botanical gardens was the Turpan Eremophytes Botanic Garden which specialises in desert plants. Of the 400 species cultivated, there are 17 species of *Tamarix* (50% of the Chinese species), a genus which has a key role in 'afforestation' of the desert. The garden is at 90 m below sea level—possibly the lowest botanic garden in the world—with average daily temperatures ranging from -28°C to 47°C. Added to this is the challenge of an annual rainfall of only 16.4 mm.



Entrance to Turpan Botanic Garden Photo by Rosemary Purdie

The Turpan region, including the Gardens, relies heavily on water from the mountains brought through 2,000-year-old Karez, underground canals with vertical wells for ventilation and maintenance. They bring water to ponds from which vegetable gardens, vineyards, etc. are watered, an oasis in the desert.

The second garden was the Pamir Botanic Garden in Khorog, Tajikistan. Established in 1940, the garden sits at 2,500 m above sea level (asl) but includes an alpine section at 3,000 m asl—the second highest botanic garden in the world.

Between the two Gardens Rosemary took us past snow covered mountains, lakes and deserts and along roads which, at times, may be impassable due to 'earthquakes, landslides, avalanches or damage caused by erosion'. It's a harsh environment where only very special plants survive.

## Life Membership

Barbara Daly was awarded only the third Life Membership of the Friends for her valuable and long-standing voluntary contribution to the work of the Gardens. Barbara has been researching, writing and publishing *In Flower This Week* since the early 1990s. See page 12 for a picture of Barbara receiving her 20-year volunteer award. Congratulations, Barbara!

## The Bernard Fennessy 'What's In A Name?' Award 2007

Joint runner-up: June Foster

### *Eucalyptus flindersii*



*E. flindersii* in the Flinders Ranges.

Photo by Brooker & Kleinig © ANBG

Whenever I walk along the Main Path at the Australian National Botanic Gardens I pause near marker 34 in the Proteaceae Section 25 to pay homage to a small eucalypt tree which is growing with the shrubby grevilleas. It was planted in 1973 but the foliage is still within easy reach and I can see fruiting capsules on the upper branches. Below, in the leaf litter, small trees have sprung up. Hopefully they are seedlings of this grey mallee tree, *Eucalyptus flindersii*.

Mallee is an Aboriginal name given to multi-stemmed eucalypts which have a large woody rootstock (lignotuber) and an umbrella shaped canopy less than eight metres high. The name is also given to the dry areas of southern Australia where they are dominant, probably having evolved in a time of prolonged aridity.

Some mallee 'roots' may be seen in Section 211; they are enormous and only removed from the ground with great difficulty. The 'stump-jump' plough was invented for farmers wanting to plant food crops in Mallee regions and a 'root' would provide warmth for a week on the settler's hearth.

*Eucalyptus flindersii* was collected and named by Robert Brown (1772-1858), a naturalist who accompanied Matthew Flinders aboard the *Investigator*, on a voyage of exploration, authorised by Sir Joseph Banks, when they sailed along the Great Australian Bight of our continent and entered Spencer Gulf. At the top of the gulf they saw the peaks of the magnificent Flinders Ranges in the distance and plant specimens were collected on the nearby stony inland ridges.

Matthew Flinders, English navigator and explorer, was born in Lincolnshire on 16 March 1774. As a child he read *Robinson Crusoe* and dreamed of becoming an explorer. In 1789 he entered the Royal Navy and served as midshipman under Captain William Bligh on a voyage to the South Seas. Later he sailed to Port Jackson with George Bass, the ship's surgeon on the ship which brought Governor Hunter to the colony. Together Bass and Flinders sailed and mapped the coastline to the south of Sydney and circumnavigated Van Diemen's Land (later named Tasmania). Flinders returned to England and published his *Observations on the Coasts of Van Diemen's Land, on Bass Strait...and...the Coasts of New South Wales*, dedicated to Sir Joseph Banks. He married Ann Chappell on 17 April 1801 and three months later, with Banks' influence, he sailed on the *Investigator* on the above mentioned plant-collecting voyage. Little did he know that he would not return to his beloved wife until nine years later.

He is remembered as the first person to circumnavigate our continent and at his suggestion the name Australia was adopted. He was a humane commander, well respected by his crew and he persevered against all odds. The ships he commanded were old and often not seaworthy and he endured shipwreck. On his return voyage to England he called at the French colony of Mauritius for repairs. Unfortunately England and France were at war and Flinders was kept there as a prisoner for almost seven years. The book *My Love Must Wait* by Ernestine Hill is based on this poignant story. *The Last Farewell*, a song by Roger Whitaker, is about his return to his wife

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*For I have loved you more dearly than all the spoken words can tell.*

Broken in health, Matthew Flinders died four years after his return at forty years of age, dying the day after his book was published. He did not live to see his famous grandson, born in 1853. Sir Flinders Petrie, the Egyptologist renowned for his energy and Spartan lifestyle, excavated in England, Egypt and Palestine until well into his eighties, writing *Seventy Years of Archeology*. He must have been inspired by the life of his famous grandparent.

I too am inspired to read of the achievements of Matthew Flinders in his short lifetime. And I admire his courage and humanity and his literary writings. He wrote a memoir called *Trim*. It is the story of the ship's cat which was his companion when he circumnavigated Australia.

Matthew Flinders, like the grey mallee which bears your name, we honour your tenacity and perseverance in adversity. Your birthdate, 16 March, in the same week as Canberra Day, could be celebrated too for the explorer who gave Australia its name.

## **A Mallee Tree *Eucalyptus flindersii***

With shoulders bent, the slender trunks

Wear cloaks of sombre greenery.

They rise up from a 'mallee root' –

Foundations for a century.

Withstanding drought and fire and flood

And scorching winds that dry the blood.

We could not stand so patiently,

Day in, day out, from year to year;

Without complaint or anguished cry,

Without collapse or show of fear.

A countryman's considered tough –

The mallee tree's of sterner stuff.

The Mallee soil is powdery red,

Enriched with iron, life-giving earth.

This will provide, survive, empower

To overcome, survive, from birth.

With grit and grim determination –

An 'Aussie Battler' for our nation.

*June Foster*

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## *From the Bookshop* Tom Butt, Shop Manager



*Finding your way in the bush:  
how to navigate and plan  
bushwalks*  
by George Carter  
Canberra Bushwalking Club,  
rev.ed. 2007, paperback, 54 pp.  
photos, diags, maps  
ISBN: 978 0 9598790 1 8  
RRP \$12.95

The exhilaration of finding your own way to the top of a mountain or exploring pristine rainforests, rivers and gorges is indescribable.

Some might prefer listening to the morning chorus of birds from the comfort of their sleeping bag, or watching the sun set over a remote gorge, or 'discovering' the best swimming pool in the world.

This book is for those who love to spend time in the great outdoors and are keen to venture into wilderness areas. It teaches skills necessary to enjoy the bush safely, including maps, compasses, use of GPS, recognising landforms, choosing your route, estimating times and distances.

It is full of wonderful knowledge, information and inspiration.



*Field guide to the native trees  
of the ACT*  
National Parks Association of the  
ACT, 2nd. ed. 2007, paperback, 98pp,  
photos, drawings, glossary, index  
ISBN: 978 0 646 44747 6  
RRP: \$27.50  
Also available from NPA ACT,  
email: [admin@npaact.org.au](mailto:admin@npaact.org.au)  
phone: 02 62293201

Have you ever wondered at the difference between a Red Gum and a Red Box? This book can tell you what it is and can help you identify both trees. Identification is easy with: colour photographs, botanical drawings, location tips, thumbnail maps for less common trees, and a key for determining the species.

Trees put the bush into the bush capital. This guide describes 62 trees indigenous to the Australian Capital Territory, from Snow Gums high in the Brindabellas, to Apple Box in the disappearing woodlands, and to black Cypress by the Murrumbidgee River.

The Guide has been written primarily for the non-botanist interested in trees of the ACT. The descriptions are brief with references provided for further reading if desired.



## The Bernard Fennessy ‘What’s In A Name?’ Award 2007

Joint runner-up: Edwin Rice

### *Acacia maidenii*



Photo by Anne Rawson

The wattle tree, Maiden’s Wattle, stands near the edge of the path, in Section 2 up by the Eucalypt Lawn. An old tree with a much-pruned grey-brown trunk, its more recently-dead limbs show it is in the twilight of its life. A search in the leaf mould under the canopy reveals the stumps of other, still earlier plantings—perhaps the forebears of what we see now. Standing back, we might imagine this old tree to be part of a family group. It has around it a dozen or more mature wattles, all the same species. They are smoothly barked, though lightly fissured, with diameters of around 30 centimeters. Some straight specimens rise to ten metres tall, others are leaning out and away, one even growing horizontally. Still further out, on the edge of the group, are the newest generation; suckers and saplings, hundreds of them, with their supple grey-green stems, and very gently curved phyllodes, their new growth tipped with red.

In 1892 Baron Ferdinand von Mueller, then in his late sixties, was approaching the end of his incredibly productive life when he named a newly discovered *Acacia* after 33-year-old Mr Joseph Henry Maiden, Curator of the Technological Museum, Sydney. They had known each other professionally for some years and in recent times had collaborated on descriptions of botanical specimens. But the naming of *Acacia maidenii* was, I believe, more than just a simple professional courtesy, it was a clear mark of respect and encouragement on von Mueller’s part towards a promising beginner in the field of botany. Von Mueller himself had arrived in Australia from Germany in 1848, with qualifications in pharmacy (which included

botany), becoming Victorian Government Botanist in 1853. From the start of his career he had recognised and promoted the economic potential of Victorian plants, in particular the eucalypts and acacias for their medicinal properties, their timber, tannins and gums. He sent seeds worldwide to collectors and botanical gardens and in return imported species exotic to Australia—the blackberry he was particularly pleased to establish. In the process he established for himself (and Australian botany) a valuable international reputation. Now it appeared that the ‘baton of economic botany’ had again been picked up, and again by a newcomer to Australia.

J.H. Maiden had left his chemistry studies in England to come to Australia in 1881 for his health. He quickly found a position, at twenty two years old, as the Curator of the new Technological Museum in Sydney. Having an interest in botany he profited well from his association with von Mueller, whom he first approached in 1883 for timber samples for the Museum. He also received encouragement from Charles Moore, the Director of the Botanic Gardens, and from the botanist, the Rev. Dr William Woolls. Making himself an expert in economic botany, Maiden began publishing. One of his earliest efforts, in 1889, was *The Useful Native Plants of Australia*, a work that drew together a great deal of both published and unpublished knowledge on the subject, in which he gave full credit to von Mueller and his other mentors. This was followed in 1890 by *Wattles and Wattle Barks*, a publication designed to encourage, through detailed example, the cultivation of wattles for the tanning

*continued next page*

industry, and one which drew heavily on Maiden's ability as a chemist to analyse the tannin content of the barks he tested. Chronologically, it was soon after this that *A. maidenii* was named.

Four years later Maiden was appointed Government Botanist and Director of the Botanical Gardens in Sydney, posts he was to occupy for 28 years. It was also the year that Baron von Mueller died. Maiden's major botanical works in the years to come were the eight volume *A Critical Revision of the Genus Eucalyptus*, and his similarly imposing *Forest Flora of New South Wales*. He also published in trade journals and newsletters, where his knowledge would be accessible to the broader public. His comments, designed to stimulate use of colonial forestry products, entitled 'Some ornamental New South Wales timbers', for example, were published in the *Building and Engineering Journal*, the *Australasian Building and Contractors' News* and in *Timber Merchant*. Similarly, the *Agricultural Gazette* carried his articles on topics as diverse as colonial timbers for wine casks and walking sticks, flower farming for perfumes and medicines, and on accidental stock poisonings.

Maiden described and named over 300 new species of Australian plants, more than one third of them acacias. He repaid the compliment to von Mueller with *A. muelleriana* in 1893, and continued in a similar vein to name species after people he respected. *A. clunies-rossiae*, *A. kettlewelliae* and *A. sowdenii* were all named after people instrumental in helping him to establish Wattle Day on a national footing, while *A. dorothea* is named after his daughter. Eleven years earlier she had been christened Acacia Dorothy, and in naming a species after her he said that it was 'in fulfillment of a long standing promise.'

*A. maidenii* is referred to by different writers these days as being either a tall shrub or a small tree. Maiden, himself a man of short stature, chose to refer to it as a tree of medium size. It has phyllodes 10-20 cm long, narrow, lanceolate to falcate. Loosely flowered spikes from 2.5 to 6 cm long bear pale yellow or cream blossom, from summer through to autumn. The trees in the Gardens were just finishing flowering when I visited in mid-May.

Maiden was survived by his four daughters, but his name was immortalised by the creation of 35 specific and two generic names in his honour, not to mention the shortest Street in Yarralumla. His 2001 biography, *The Little Giant*, takes its name from a poem written on the occasion of his retirement—a year before his death. Its concluding lines are:

...Fettered by age is the giant, and marked for the axe  
is the tree  
But though the woodsman draws near, yet has the tree  
borne fruit.

# Growing Friends

Loris Howes

Growing Friends are elated: the tank is full, the pump is in place and hopefully the odd thunderstorm or two will keep the Growing Friends group independent of town water over the remaining summer months and well into the cooler times when the evaporation rate is lower.

The other good news is that there will be an

## autumn plant sale

on Saturday 5 April from 8.30 am to 11 am

Amongst the plants for sale will be:

*Hakea petiolaris* from the granite outcrops and hills in southern WA. Flowers are in globular-shaped clusters, rather like a sea urchin—hence the common name, Sea Urchin Hakea. Honeyeating birds are attracted to these spectacular, unusual looking flowers which appear in autumn and winter. Growing as a tall shrub or small tree, this hakea can be lightly pruned. It is tolerant of mild frosts and likes an open, sunny well-drained position.



Photos by Murray Fagg  
© ANBG



*Pelargonium rodneyanum* occurs within heathland, rocky outcrops, sclerophyll forest and woodland areas of SA, NSW and Victoria. The markings on the two top petals of its clusters of four to six flowers serve to guide the pollinating insect to the nectar source and ensure its contact with the pollen-bearing organs. It is very likely these markings are even more striking with the ultraviolet vision possessed by many insects. A useful, hardy, spreading ground cover or rockery plant flowering in summer and autumn. It is easily propagated by tuber division, soft/semi hardwood cuttings and clump division. It requires reasonable drainage and may self-seed.



# Our Nation's Garden

Annual Photographic Competition for ACT and Queanbeyan  
Region High Schools and Colleges

*Shirley McKeown, Co-ordinator*



This competition not only encourages school students to use their photographic abilities, but also to see, learn and understand the beautiful and intriguing aspects of the ANBG. The competition is also a very valuable asset for the ANBG itself, as it 'spreads the word' about the nature and beauty of the Gardens.

The competition is open to all high school and college students in the ACT and Queanbeyan, and currently there are six categories. Both film and digital cameras can be used, with one of the categories (Digital/Photo Effects) specifically catering for darkroom or digital manipulation of a photo—with some very interesting results!

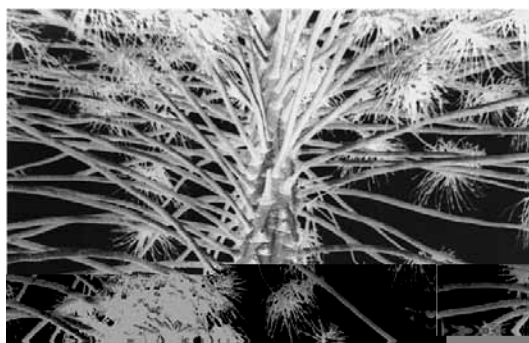
From its beginning in 1997 the competition has always been very popular, and this year reached a point where we had to limit the number of entries per student.

The 152 entries received this year were on display in the Foyer and Dickson Room from the prize-presentation day in mid-October until the beginning of December. Prize winning entries continue to be displayed in the Foyer.

An advantage this year was a two-day gap between exhibitions in the Visitor Centre Gallery, when the ANBG staff suggested we put the competition photos on display there—and they helped carry the panels! It was a terrific asset for the competition, with strong public interest and appreciation of the content and quality of the photographs.

The photographs on this page are a small selection from the 11 years of the competition. To see the full range of the prize winning and commended photographs, link into our website: [www.anbg.gov.au/friends](http://www.anbg.gov.au/friends) and use the photo competition button for current 2007 entries and the archives button for earlier ones.

From the top: Tanya Dunstan, 'Flash Back', Dickson College, First Open People in the Gardens, 2002; Kylie Gstrein, Calwell High School, First High School Colour 2005; Jessica Dakin, Lyneham High School, First High School Black and White, 2005; Michael Jackson-Rand, 'Flaming Heart', Alfred Deakin High School, Equal First High School Colour 2006; Angus Hawke, Canberra College, First College Digital 2001.



Sincere thanks to the initiator of the competition, Beverley Fisher, to the school students and their teachers, to our judges, Barry Brown and Denise Ferris, and to all the ANBG staff and Friends who have supported this competition.

# Gardens Shorts

## From the Director

Australia Day has just passed us, the beginning of another year. I have been reflecting on our new Prime Minister's Australia Day speech—and find that it serves as useful inspiration for the ANBG. He spoke about reflecting on our past achievements, and on embracing the future.

The ANBG was the first botanic garden focussed on native Australian species and the garden that was created is indeed one to reflect on and be proud of. And we should be optimistic about what the ANBG can achieve in the future; the possibilities are unlimited.

One of the great challenges facing the nation is of course climate change. Australia's botanic gardens can play a key role in national efforts to address climate change and to assist the nation in adapting to it—it is the most important challenge that the ANBG can take on and it is a challenge which will ensure we are relevant to the nation. People ask, what has climate change got to do with the ANBG, what can we do, as if it is beyond us!

Taking on climate change as a focus does not mean dropping everything we do and doing something different, it means that it becomes our new focus. It means that: climate change, its impacts on biodiversity and possible responses, should be the focus of our education programs; that the priority species for collection, propagation and ex-situ conservation should be species which might be threatened by climate change; that the focus of our botanical and horticultural research should be issues relevant to climate change; that all the information about plants which is hidden away in botanic gardens should be made accessible, urgently, to scientists and the community so

that it can contribute to the research of others; and that, as the only nationally focussed garden, we should be taking a leadership role and working with other Australian gardens to enhance the efficiency and effectiveness of our collective efforts.

So as we start 2008 it is appropriate that we search for a new vision for a modern ANBG, one which will ensure we are engaged in the challenges of the nation, one which will inspire and enrich the nation, well beyond our site in Canberra.

The review of the Management Plan will begin in earnest shortly and there will be many interesting discussions about a new vision. I encourage you to consider the national role of the ANBG and get engaged in the opportunities provided by the planning process. In the words of the PM: 'If we are to build a modern Australia to face the challenges of the future we need to harness our best brains, our best ideas, all for the national good'. And that applies to the ANBG too!

*Anne Duncan*

## New Watering Technology

With its new Water Management Strategy the ANBG is introducing latest technology practices and moving towards being more environmentally responsible and water efficient. The strategy, which should be completed in February 2008, has two major components, a centralised computer-operated irrigation system and soil moisture sensors.

The irrigation system was installed in 2006 and has been operating for 18 months. It allows staff to program irrigation from one location and access water usage reports. There is a full report in the *Friends Newsletter* no.55 March 2007.

During this year we will be installing 12 soil moisture sensors, of two types. The first is a 300 mm probe with sensors at each 50 mm depth (six sensors per probe). These will relay data back to a computer located in the bottom depot using UHF frequency. This means that data can be viewed in graph form live

(immediately). This tool will allow our horticulturists to fine tune irrigation programming because they can see more precisely what is happening with soil moisture across the Gardens. The second type of sensor will be connected to the irrigation system and will only allow programs to operate when soil moisture reaches a 'dry' threshold. If soils haven't dried out, then irrigation won't occur.

*Paul Janssens, Curator,  
Living Collections*

## Good news story



Photo by Barry Brown

The apparently dead Wollemi pine lives again! A root pathogen was the chief suspect, but when the pine was exhumed, it was clearly not the case. Gardens staff potted it up to see what would happen and sent some soil and root material to Sydney for testing of known pathogens, *Armillaria* and *Phytophthora*. These came back negative. Since then, the pine has shot from the base and there are signs of leaf buds about to burst along the stem. The current theory is that it was too exposed to the extreme sun and heat in October and dropped its leaves in protest. Apparently it wasn't happy in that spot as it had put on virtually no growth in the last few years, but it is doing OK now in a pot hidden in deep shade. There is now a replacement pine a bit further down the path towards the rainforest gully, where the aspect will be more favourable (more shade and no westerly exposure to the harsh afternoon sun).

*Phil Hurle, Manager, Bottom Depot*



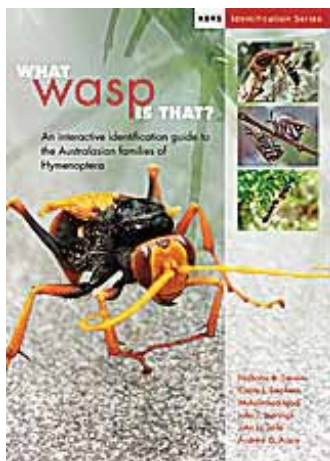
## Australian Biological Resources Study

Strolling through the Gardens, most visitors are probably unaware of the important scientific work taking place in the Ellis Rowan and Franklin Buildings. These modest brick buildings house the 13 staff of the Australian Biological Resources Study (ABRS). It is the centre that coordinates Australian research in taxonomy, the science that identifies, describes, classifies, and records the distribution of our flora and fauna.

Australia's rich and diverse biodiversity poses special challenges for taxonomists and produces a seemingly unlimited forward work program. Of the estimated 250,000 invertebrate species of Australian fauna, less than half have been formally described, that is 'taxonomically'. Fungal species have been even less under the microscope with less than 10 percent thought to have been identified.

Happily the work on higher plants and vertebrate animals is further advanced but much remains to be done. Nearly half of the 60 volume *Flora of Australia* has been published with the most recent being *Flora of Australia Volume 2 Winteraceae to Platanaceae*, which describes some of the most ancient flowering plants known. The three volume set of the *Zoological Catalogue of Australia* on the fishes was also published last year and documents around 4,500 fish species.

In the past year ABRS has published four volumes in its new book series



*Algae of Australia*. Over 12,000 known Australian algal species are found in marine and freshwater habitats, in soils, in water films, and even deeply buried in solid rocks. The identification and description of Australian algae will enable ABRS to provide authoritative identification guides to some of our most significant and sensitive organisms.

A significant challenge for ABRS is to ensure that its work is readily accessible. As well as its specialist publications, ABRS maintains on-line searchable databases and helps to produce interactive identification guides. Wasps can now be identified with the help of a new CD ROM *What wasp is that? An interactive guide to the Australasian families of Hymenoptera*. Flies can be identified with a similar key, *On the Fly*. And the definitive guide to all 57 recognised genera of Australian Ladybird beetles comes in the form of a splendidly illustrated review.

Further information on ABRS is at [www.environment.gov.au/biodiversity/abrs](http://www.environment.gov.au/biodiversity/abrs)

*Helen Thompson, ABRS*

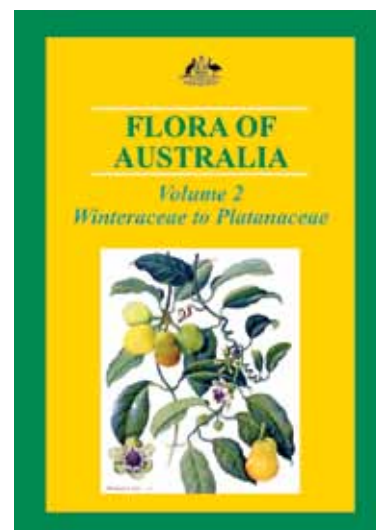
## Vale Helen Joan Hewson

Botanist, author, artist and Friend

born: 24 June 1938

died: 29 October 2007

Helen will be chiefly remembered for her work of 20 years with the Australian Biological Resources Study on the multi-volume series, *Flora of Australia*



## Did you know?

Staff of the ANBG is involved in recovery projects for a range of threatened species, with a range of collaborating institutions throughout Australia.

*Cassinia tegulata*

Tony Orchard has been working in South Australia, collaborating with SA Department of Environment and Heritage

*Corybas dowingii*  
*Cryptostylis hunteriana*  
*Rhizanthelia slateri*

Mark Clements has been developing and implementing translocation techniques for these orchids with NSW Road and Traffic Authority in Bulahdelah, NSW

*Eucalyptus imlayensis*

David Taylor and Paul Carmen, on behalf of NSW NP&WS, working at Mt Imlay on the south coast, are attempting to discover whether this eucalypt is susceptible to *Phytophthora*.

*Hakea pulvinifera*  
*Lomatia tasmanica*  
*Swainsona recta*  
*Zieria baurienii*

Joe McAuliffe is growing *ex situ* clones, as per recovery plans for each species, in consultation with Royal Botanic Gardens Tasmania on *L. tasmanica*, and with Booderee Botanic Gardens and NSW NP&WS on *Z. baurienii*.

*Muehlenbeckia tuggeranong*

Dave Mallinson and Joe Macauliffe, with Sarah Sharp from what was Environment ACT, are determining if an increase in plants results in seed production, and secondly, increasing the number of plants *in situ*. Joe is also growing clones *ex situ*

*Rhacocarpus rehmanianus* var *webbianus*

Chris Cargill is working with WA Department of Environment and Conservation to ascertain whether this moss can be artificially cultured so it can be repatriated back into the wild.

*Treubia tasmanica*

Chris Cargill has four or five live plants in a growth cabinet, but is also attempting to grow plants from spores in culture. These liverworts grow on boulders along the West Tyers River near Mt Baw Baw.



# Friends Briefs

## Grazing in the Gardens

Photo by Alan Munnis



Grazing in the Gardens 2007 was indeed an event to remember. What started as a sunny November afternoon developed by half-way through the main course into an early summer storm. Diners ate one-handed and juggled umbrellas as they refused to abandon the delicious buffet meal. Then it was indoors for dessert to the accompaniment of the magic sound of rain on the roof!

## Concert season 2008

Photo by Martin Butterfield



The much reduced 2008 concert season was well attended and much enjoyed, even by the resident ducks, though they were not impressed that their lawn had been invaded by a foreign species. However, they had it all to themselves on Saturday 19 when the concert was washed out. That concert was rescheduled on 3 February.

## Guides' gigs

Last year over 3,000 visitors participated in walks led by the Friends' Volunteer Guides. As well as the ever popular daily walks, around 300 visitors were led by Guides in booked tour groups.

## Botanical Resource Centre

The Botanical Resource Centre is moving towards completion and functioning as the new home for the Public Reference Herbarium. With the support of students participating in the Botanical Interns program the 200+ volumes of the Herbarium have been moved from the library into the newly fitted out Centre in a room adjoining the Friends lounge in the Ellis Rowan Building. Students have also assisted with the updating and correcting of specimen names in the Herbarium.

Eager facilitators commenced training on 4 February with a discussion on the role of the Centre and a tour of the Australian National Herbarium. Training sessions for facilitators have continued throughout February.

With the arrival of computers, donated by Volante, and supplied with stools and a microscope, the Botanical Resource Centre will be ready for use by the public in early April.

## Guides intake 2008

Would you like to become a volunteer guide at the ANBG? In mid-June we will be advertising in the local media for expressions of interest from those wishing to undertake the training course. After an information session, interviews with applicants will follow in mid-July. The training course itself will begin on Wednesday 30 July, continuing on Wednesdays and Thursdays (9.30 am to 3.30 pm approx.) till 28 August, that is for five weeks.

The main requirements for becoming a guide are:

- an interest in Australian native plants
- a commitment to the ANBG
- an ability to communicate your enthusiasm to visitors.

If you would like to be contacted when further information is available, please register your interest with the Visitor Centre, phone: 02 6250 9540.

**GROWING FRIENDS PLANT SALE SATURDAY 5 APRIL, 8.30 am to 11 am**

## Volunteer morning tea

The Gardens held a special celebration to thank its many volunteers as part of International Volunteers Day. The gathering honoured volunteers who have contributed 10, 15 and even 20 years of service. Thirty-five of the Gardens' volunteers have been sharing their passion and skills for ten years or more – a remarkable accomplishment.



Photo by Barry Brown

**Still a passion for plants:** Barbara Daly receives an award for 20 years of volunteering and her work on *In Flower this Week* from ABC radio broadcaster, Genevieve Jacobs. Last month 24,500 pages were downloaded from the current and archived files of 'In flower this week' from the Gardens' website.

## Botanical Art Exhibition

The Botanic Art Groups of the Friends will hold their first exhibition of paintings and drawings at the Visitor Centre Gallery, 4-16 March from 9.00 am to 4.30 pm each day. Some works will be for sale, with donations from sales going to the Friends. All welcome.

## Vale Catherine Blakers

born: 15 June 1923

died: 18 January 2008

Catherine joined the Volunteer Guides in 1995. She was a true devotee of the Gardens in many aspects, always stimulating others to appreciate our Australian flora.