



Fronds

*Friends of the Australian National Botanic Gardens
Number 75 December 2013*

"Come up and see me sometime!"



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Australian National
Botanic Gardens

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Email or post material to the FronDS Committee at the above addresses or, place in the Friends letterbox, located inside the Gardens' Visitor Centre, between 9.30 am and 4.30 pm, Monday to Sunday. Editorial messages: telephone (02) 6250 9548.

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Cover: Close up of Thorny Devil (*Moloch horridus*) in the Red Centre Garden. Photo by Barbara Podger

Schools' Photographic Competition



From top left: First prize Altered Images: *Kangaroo in the Glass* by Muhaimin bin Mohammad; First prize College Colour: *Flora Beauty* by Darcey Lewis; First prize High School Colour: *Rising Michael Turnbull*

School and College students again excelled themselves with 270 entries in this year's competition. The judges were impressed with the standard of entries. 'We will have to watch out in club competitions for the new blood coming through', commented chief judge Ken Crawford. Both he and assistant judge Laurie Westcott are members of the South Side Camera Club. Prizes were awarded on Saturday 16 November, and photos are on display in the Visitor Centre gallery until 12 January. Many thanks to our judges and also to Friends volunteers, Cecilia Melano who organised this year's competition, with assistance from Janelle Chalker.

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Acacia colei: Cole's Wattle

John Turnbull



C. Cossalter

Acacia holosericea now *A. colei*, Senegal.

Acacia colei is being planted in the ANBG's Red Centre Garden but few know the story of its discovery and subsequent use to alleviate famine in dry tropical Africa.

In many parts of Africa local acacias are appreciated for erosion control, soil improvement and for fuel, animal fodder and gum, but deforestation and population pressure have prompted researchers to complement them with exotic acacias.

Australian acacias were first trialled in Sub-Saharan West Africa in the 1970s and 1980s with the aim of finding suitable species for fuel and windbreaks. Early results were promising, especially with *Acacia holosericea* from northern Australia, and in 1984 a joint Australian-French expedition was made to obtain more seeds of this and other acacias. During this collection CSIRO Technical Officer, Jerry Cole, observed that some of the seed pods of *A. holosericea* were not typical of the species. Subsequent examination and genetic analyses by acacia specialists confirmed his observation and the new species described by Drs Maslin and Thomson in 1992 was named *Acacia colei* in his honour.

I had no idea that my simple observation in the field that day in 1984 would produce a new species or have such a major influence on people's lives in faraway Africa.

Jerry Cole, now retired and living in the ACT.

A. colei is typically a large spreading shrub up to four metres tall. It comprises two varieties, var. *colei* and var. *ileocarpa*, which are distinguished by their pods, curved in the former and tightly coiled in the latter. Cole's wattle is widespread in the semi-arid tropics across northern and



Murray Fagg

Pods of *A. colei* taken near Rio Tinto Gorge, Pilbara, WA.

central Australia from the Pilbara to Western Queensland.

In 1986 a conference paper co-authored by Bush Tucker Man, Les Hiddins, emphasised that acacia seeds historically formed part of traditional diets of Australian Aborigines. This stimulated interest in their potential for human food in Niger Republic where famine was a regular occurrence and where *A. holosericea* was already being used as a quick-growing source of fuel. *A. colei* was chosen as a key species to develop as a source of nutritious seed for human food after trials supported by NGOs and CSIRO. The main advantages of *A. colei* include: annual seed production of about 2 kg per tree from the second year, seed easily harvested and processed, and suitability for long storage periods.

The seeds are tasty and nutritious, being high in protein (23%), carbohydrates (53%) and fats (11%). Acacia seed flour is amenable to incorporation in a range of food products for humans and for livestock such as chickens. Trials showed the seeds were safe to consume at rates up to 25 per cent of the human diet. Aboriginal women from Yuendumu in Central Australia have visited Niger and passed on their knowledge of acacia food preparation. Acacia flour is now included in over 40 local dishes. Cole's wattle also provides wood or charcoal for cooking.

A. colei grows rapidly and its annual foliage biomass is three times higher than that of local trees. When used as mulch on millet, the region's staple crop, it raises yields. Further benefits come from increasing soil organic matter and windbreak effects.

World Vision reported that between 2006 and 2009, over 50,000 acacias were planted on 480 farms in 33 villages. More trees are being planted each year as consumers claim the many benefits.

More challenges ahead

July 2012 - June 2013

Following are edited versions of the reports to the 25th AGM of the Friends on 10 October 2013 by David Coutts, President of the Friends; Marion Jones, Treasurer; Dr Judy West, Executive Director ANBG. Full reports are on the Friends' website at www.friendsanbg.org.au.



President's report

My third term as President has been an interesting and rewarding one but with some challenges to meet. The efforts of our volunteers and the growth in memberships, to 1437 compared with 1374 last year, are particularly pleasing.

Some highlights from the past year are:

- Formation of the Plant Science Group as an umbrella for Friends' involvement in Gardens' research.
- Continued support for Gardens' research, including the alpine project, the seedy volunteers and assistance to the Australian Seedbank Partnership. Volunteers are also involved in the current stocktake of the living collection.
- The 6th Botanic Art Exhibition, 8 March to 7 April.
- A full program of Summer Sounds concerts.
- A Centenary gift to the Gardens of pavement artwork for the new Red Centre Garden which uses cutting edge technology. Based on an original painting by Teresa Purla McKeenan from Central Australia.
- Two successful Growing Friends plant sales.
- A Family Picnic Day in April.
- A new intake of 20 volunteer guides.
- Guides' 'Turned On' walks inspired by the Turner exhibition at the NGA proved very popular.
- Thursday talks continued with very interesting speakers, bolstered by a series of 'Centenary Chats' to mark the Centenary of Canberra.
- A Centenary dinner with guest speaker Dr Lenore Colthart.

- Launch of the Eucalypt Discovery Walk, a joint ANBG/Friends initiative, by Murray Fagg.
- The Flora Explorer electric bus donated by the Friends has become a popular attraction.

In June the Gardens proposed to Council that Friends volunteer in the Visitor Centre. Council considered this proposal very carefully, especially from the perspective of the appropriate balance between volunteers and paid staff. Overall Council had to acknowledge that the Gardens is under pressure for resources, and the horticultural and research functions are the highest priority and where staff must be maintained. Council also noted that many other institutions, including major botanic gardens, use volunteers in this role. I see this role as potentially a most rewarding and interesting one for our volunteers, who will be greeting and directing visitors. While not completely at ease with the proposal Council agreed that the best course was to cooperate with the Gardens' request on the basis that we will review the situation at the end of this year.

Unfortunately it is unlikely that the resources available to Gardens management will increase in the medium term. The Friends will be making representations to the new Minister and the Department on these issues. Any opportunity members get to reinforce those views would be greatly appreciated. We will be working with the Gardens to seek funds from non government sources.

I conclude by thanking all those who have given time and expertise during the past year. There are too many to name but running such a large totally voluntary organisation would be quite impossible without such support.

David Coutts

Treasurer's Report

Friends' Treasurer, Marion Jones, reported that with a net operating deficit of \$80,245 for the period, accumulated funds stood at \$271,623 at the end of the financial year. The major expenditure for the year was \$87,000 towards the Red Centre Artwork Centenary gift to the Gardens. Other expenditures included payments for Seed Bank Equipment (\$30,700); audio-visual equipment for the Theatre (\$9,000); a new and improved Friends website (\$5,800); and the Water Bubbler on Banks Walk (\$5,400).

The Friends' main source of income was steadily increasing membership receipts (\$58,550). Other net income came principally from interest (\$16,911); plant sales (\$7,098); Thursday talks (\$3,852); Botanic Art Exhibition commission and raffle (\$3,637); booked walks (\$1,727) and Summer Concerts (\$1,275).

The disappointing outcome for the concerts this year, usually our second highest source of revenue, can be sheeted home to unfortunate weather conditions last January which caused the cancellation of two concerts and a low attendance on three nights when rain arrived or was threatened.

Donations to the Public Fund totalled \$21,515, almost double the previous year, which was most encouraging.

After the major contribution for the Centenary year, we hold sufficient reserves to fund normal expenditure costs and contributions to Gardens projects albeit at a more modest level for the foreseeable future.

Congratulations to new Life Member



Kristiane Hermann

Alan Munns is congratulated by outgoing Vice-President, Barbara Podger, on his award of life membership for services to the Friends, including as past President, Guide and website editor.

Council elections

Congratulations to Lesley Jackman on her election as Vice President and Jan Finley as newly elected Council member. Also to re-elected office bearer, Marion Jones (Treasurer) and Council member, Dennis Ayliffe.

In paying tribute to retiring Vice President, Barbara

Podger, the President said, 'Barbara has been on Council for a number of years and has made outstanding contributions, including to the Guides, social activities and to *Fronds*. Barbara is standing down from Council but assures me she will continue her involvement with the Friends activities'.

Executive Director's report

In Judy West's absence, delivered by Steve Speer.

I am pleased to report that the Gardens has had another successful and busy year.

One of our high points has been the completion of the Red Centre Garden. The official opening will be the culmination of three years of staff teamwork and dedication, involving planning, landscape design and reshaping, planting and interpretation.

Living Collections staff have also commenced the revitalisation of the Eucalypt Lawn and a planting program for annuals.

Many successful events and developments have contributed to our ongoing focus on enhancing the visitor experience, including the Friends' supported Eucalypt Discovery Walk and Flora Explorer Tours.

Our Conservation and Research programs are stronger than ever as we develop our expertise, facilities and research to support the *ex situ* conservation of rare and threatened plants.

The Friends have been integral to our success, not only through your financial contribution but through your partnerships in delivering visitor services, such as Volunteer Guides and Visitor Centre volunteers, and support in Gardens programs, such as the National Seed Bank and Summer Concerts.

Judy West

Thanks to our Guest speaker, Dr Linda Broadhurst



Kristiane Hermann

Dr Linda Broadhurst, Research Scientist at the Centre for Australian National Biodiversity Research, speaking on the role of genetics in conservation research. Linda left us in no doubt as to the care and attention needed to ensure genetic diversity in landscape regeneration and plant population protection.

Forest 20 becomes STEP

Max Bourke AM

Canberra's landscapes are in trouble. In some cases it is native species that are disappearing; in others whole ecosystems, like the Yellow Box/Red Gum Grassy Woodlands, are on the brink. Two hundred years of clearing for wheat and sheep farming, roads and urban expansion have left only an estimated three per cent of these woodlands intact on the east coast from Queensland to South Australia.

Ten years ago a group of concerned people from Friends of Grasslands and the Australian Native Plants Society decided to do something about this. They formed a new community group called the Southern Tablelands Ecosystems Park (STEP). The ACT Government encouraged this development and in 2009 Forest 20 at the newly developing National Arboretum Canberra (NAC) was allocated to STEP. (To find it, turn your back to the entrance to the Visitor Centre and walk down the hill.)

STEP planned and developed this site in a way designed to help educate visitors about the flora typical of the southern tablelands, what they are, where they grow, how they interrelate—a regional botanic garden. The ANBG strongly endorsed this proposal and indeed the launch of STEP was held there.

Tree planting commenced in autumn 2009: 16 species of eucalypts along with Kurrajongs (*Brachychiton populneus*) and Drooping She Oaks (*Allocasuarina verticillata*) are established. Understorey species are being planted according to a landscape master plan prepared by a STEP member, and this spring the design/layout of the site has become clear. Fifty-eight species of shrubs, herbs, ferns and grasses have now been planted over about one hundred of the 3 x 3 metre squares, each presenting a species to the visitor. Already this spring several have flowered prolifically (*Hardenbergia violacea*, *Indigofera australis*, *Microseris lanceolata*, *Grevillea iaspicula*, *Leucochrysum albicans*, and *Bulbine bulbosa*).

While the arboretum management provides some practical support, this project, like the National Bonsai and Penjing Collection, is entirely run by an independent group of volunteers working on-site.

Dr David Shorthouse, the Vice President of STEP, said: 'We are lucky that there is a core group of committed folk who meet every Thursday morning for two to three hours and do the work of planting, pruning, weeding and path maintenance that enables us to keep the project rolling along. We are now running occasional tours of the site and there is a tour offered by the NAC to the STEP site as part of its conservation program.'

'The design concept for the understorey is now very clear in Forest 20 and we will soon commence our next major project: a modest education space. This will provide simple seating and outdoor teaching space to support school and adult educational events on the site.' Dr Shorthouse said. 'Anyone interested in supporting us is most welcome to come along to Forest 20 on Thursday mornings after 08.30 in work clothes; the morning teas alone are worth the trip! We welcome new members and supporters. Contact Southern Tablelands Ecosystems Park Inc. PO Box 440, Jamison Centre, Macquarie, ACT 2614 or email djshorthouse@apex.net.au. For more information go to: <http://step.asn.au>.



David Shorthouse



Max Bourke



David Shorthouse



Linda Midtoon



The blue amongst the green

Jo Lynch

One of my favourite trees at the Gardens is the Argyle Apple (*Eucalyptus cinerea*) on the Children's Discovery Walk. Adorned with Gang Gang Cockatoos and many kinds of colourful plastic insects, it inspires little minds to explore the myriad life that trees support.

The Argyle Apple is a very attractive tree with thick rough red-brown to grey-brown bark and visually appealing opposite, blue (glaucous) juvenile leaves which often persist on the adult trees. As such, it is a very popular street and garden tree in Canberra and its leaves often turn up in floral arrangements.



Its natural distribution is from north of Bathurst to the Beechworth area of Victoria, but the Goulburn region is its major 'hotspot'. Its common name is derived from its occurrence in Argyle County, an early name for the Goulburn district. To see it in its native habitat, I contacted Rodney Falconer, Vice President of the Goulburn Field Naturalists and author of the local native plant guide *Down by the Riverside*. Always happy to generously share his encyclopaedic knowledge of the area, he immediately offered to take me to Towrang, which was, he said 'the Argyle Apple centre of the universe'.

I met Rodney on a brisk cold mid-winters day, and as we drove to ground zero, Rodney explained how the Argyle Apple grows on what the locals amusingly call 'Shitite' soils. These are shallow, stony and relatively infertile, compared to the deeper more fertile soils which support the more widespread Yellow Box /Red Gum Grassy Woodlands. 'The Argyle Apple is mostly found on the midslope between the drier hill tops of Brittle Gum forest and the lowland grassy woodlands. It rarely dominates, instead forming a part of the woodland vegetation along with other eucalypt species.'



Arriving at Towrang, about 10 k east of Goulburn, we cruised along the roads outside of town. Sure enough there were Argyle Apples everywhere, including some beautiful remnant groves surrounded by farmland. The main thing I noticed was that many of the trees were often smaller and more twisted than those you see around Canberra, reflecting the poorer soils. The other thing I noticed was that all the trees we saw were either growing along the road reserve or on private property. 'Yes, unfortunately none of the Argyle Apples around here are protected in any kind of reserve', confirmed Rodney. 'So they are all at risk from clearing which highlights the need for conservation on private land.'

I later contacted the NSW Office of Environment and Heritage to clarify its conservation status. It is found in a few protected areas, mainly in the inaccessible Tarlo River National Park and remote parts of Bungonia National Park. However they confirmed it is not well represented in conservation reserves across its natural range.



Next time you travel along the Hume Highway between Goulburn and Marulan, look out for them growing along side the road, the blue amongst the green. And stop at the Chownes VC Rest Area, a few kilometres past the Towrang Rd turnoff along the northbound lane, for a closer look at these beautiful trees in their natural environment.

Jo Lynch, a self-confessed 'plant spotter', works for the Australian Network for Plant Conservation which is based at the Gardens and aims to promote and improve plant conservation.

Captions: Juvenile foliage; *E. cinerea* on Children's walk ANBG; a grove of Argyle Apples near Towrang, NSW; Argyle Apple woodland vegetation, showing the more gnarled growth form of many trees. Photos by the author.



Birds of the Red Centre:

Boom and bust

Doug Laing

Australia is the land of El Nino, that sometimes benign but more often fearsome force dominated by changes of a few degrees either way in the water temperature of the Pacific Ocean. It is the major driver of our unpredictable booms and busts that can grip the country in the jaws of drought for years at a time, but then gloriously transform dry plains and deserts into a botanical wonderland when the rains brought by its beneficent sister El Nina finally come. This is truly country 'where creeks run dry or ten feet high', where climate and season can be utterly unpredictable.

Bird observers not only wondered at the survival of the birds in these unforgiving places but asked *how* they could survive. Arid zone ornithology through the 19th and 20th centuries answered many questions, such as where the Banded Stilt, *Cladorhynchus leucocephalus*, bred. Not until well into the 20th Century was it confirmed that this bird breeds only in shallow ephemeral saline lakes inundated by rain or flood waters far inland, where irruptions of brine shrimp can stimulate huge but irregular breeding events.

By the early 90s many of the themes and threads of ideas, observations and scientific research that had been developing over previous decades came together in a seminal piece of conceptual research by two scientists based at the CSIRO's Alice Springs research station. They concluded that all arid regions experienced spatially and temporally variable rainfall but that the temporal variability in Australia was notably higher than for any of the world's other arid regions. Australia's desert regions usually experience less than average annual rainfall, broken by very few years of very high rainfall. This skews the average. Isolated, rainstorms have little impact, but big rains brought by cyclones and monsoon depressions, combined with the infrequently broken flatness of the landscape, have an astonishingly dramatic impact on the biota, including the birds.

Take, for instance, *Gallinula ventralis*, the Black-tailed Native Hen, known to some outback hands as the Barcoo Bantam. Fleet of foot and furtive on the wing at night, it is as if they can smell rain. They can disappear overnight and just as suddenly turn up far away, often in hundreds,

pursuing distant rainstorms or flooded creeks gently overflowing into spinifex and dried out claypans. They have evolved to breed when conditions are just right, which could be several times over in good seasons or not at all when times are tough. We're unlikely to see them in our desert garden but, like the stilts and pelicans that descend on flooding salt lakes to breed, or the whirling flocks of budgerigars thriving after the last big rain, or the enigmatic grass wrens that have almost no need of water, even the inscrutable night parrot—we know they're out there somewhere!



Simon Bennett/AustrAvianImages

Ben Parkhurst

Black-tailed Native Hen, also known as the Barcoo Bantam, *Gallinula ventralis* photographed near Tibooburra NSW; Banded Stilt breeding on Lake Torrens.



Grasswrens

Naarilla Hirsch and Helen Horton

While some birds respond to the boom and bust cycles of arid Australia by moving around, others are more sedentary and make the most of local resources. One group that does this is genus *Amytornis*, the shy and cryptic Grasswrens. Because of the remoteness of their various areas of location and consequent lack of observation and study, there is still much we do not know about these little birds, with four species being discovered as late as the 20th century.

Amytornis is from the Greek words *amytis* and *ornis* (meaning bird). Amytis was the sister of Astyages, the last king of the Median (Persian) empire, the wife of King Nebuchadnezzar of Babylon and the inspiration for the Hanging Gardens—an odd name for such a little bird.

Obviously wrens (family Maluridae), with those characteristic sticky-up tails, all are variously striated and coloured in keeping with their habitat. The Grasswrens are ground living, ground feeding birds, eating insects,

they're out there!

ABC.net.au/news/



Graeme Chapman



Tim Dolby

Dusky Grasswren (*Amytornis purnelli*); Striated Grasswren hiding among the tussocks from www.tim_dolby.blogspot.com.au/2007/08/. Drawing of Striated Grasswren by Helen Horton.

seeds (including *Acacia aneura* (mulga) and spinifex) and sometimes small fruit. They seem to have little or no need for water, apparently gaining sufficient moisture from the insects they eat.

Like the Superb Fairy-wrens we see in the Gardens, they live in small groups, but pair off to breed. Their calls are high-pitched squeaky trills, or whistles, some a little more musical than others, particularly in the breeding season. In other ways they are very different from our familiar Fairy-wrens. Although slightly bigger, they are very shy, another reason for our limited knowledge of these birds. They seldom fly, but rather scuttle rapidly from one place of cover to the next. When they do fly, it is in short fast bursts, flying low.

Of the eleven species of Grasswren currently recognised (likely to be fourteen soon), three occur in the Red Centre itself. One that lives in the spinifex represented in the Red Centre Garden is *A. purnelli*, the Dusky Grasswren. Its home is among the boulder- and spinifex-covered rocky ranges of the centre of Australia. The Dusky Grasswren is adept at hiding itself in prickly clumps of spinifex, but can be seen at times in popular tourist spots such as King's Canyon, working its way from shadow to shadow up the gorges, foraging among rock crevices and around spinifex clumps for seeds and insects.

A. striatus, the Striated Grasswren, is another spinifex dweller. Usually it forages in the leaf litter under shrubs and around spinifex tussocks for seeds and insects, such as ants and beetles, but has been seen climbing bushes and jumping up to catch insects in shrubs. It has also been seen feeding on flowers, possibly eating the nectar or pistils. Its range is wide but discontinuous and the species is in the process of being split up further, with the Red Centre

population to be called *A. oweni*, the Sandhill Grasswren.

A. goyderi, the Eyrean Grasswren, is the smallest of the Grasswrens and has a slight variation in plumage colour, south to north, reflecting the comparative redness of the sand. It frequents the thick clumps of Sandhill Canegrass, *Zygochloa paradoxa*, that grow on the dunes of the desert in the corner country where three states meet. It moves in small hops or runs flat out between the clumps of canegrass.

While these three Grasswrens are not the most obvious of the birds in the Red Centre, they have coped well with the drying out of the Australian continent and make full use of the scarce resources in this harsh environment.

Of kites & cockatoos

Jonette McDonnell



Malcolm Cocks

In the early morning by the Todd River in the Alice I discovered a pair of Black Kites with recently fledged young in a very old river red gum. While trying to get closer I overstepped the mark—I heard rustling and felt wind—one metre above my head was an adult kite. It chased me across the river bed and the road back to my hotel.

I have enjoyable memories of Red-tailed Black Cockatoo flocks flying against the red ranges that surround the Ilparpa Valley. One evening I was lucky enough to find about 30 birds in a group of huge old trees settling into the roost for the night.

In the valley there were also Splendid Fairy-wrens, Grey-headed and Singing Honeyeaters, Orange and Crimson Chats, Chiming Wedgebills as well as Variegated Fairy-wrens, a delight to observe while having a morning coffee. We went to Trepahina Gorge one afternoon and experienced the wonder of seeing a huge flock of Budgerigars wheeling this way and that up the gorge. It's a pity we can't replicate these experiences in our Red Centre Garden.



The Red Centre Garden

Thursday 31 October

Senator Birmingham opens the RCG



Senator Zed Seselja, Dr Judy West, Executive Director of the ANBG, and Senator Simon Birmingham admire the pavement artwork.

Senator Simon Birmingham, Parliamentary Secretary to the Minister for the Environment, opened the Red Centre Garden at the ANBG. ‘This garden has been three years in the design and making. In a first for Canberra, the garden features the arid landscapes and iconic plants of Central Australia. It’s great to be here today and see the striking red sand, dunes and rocks and desert trees and plants. I congratulate the Gardens and their staff on their passion and spirit. This is a place that continues to inspire, inform and connect people to the native plants of our country. Where else in Australia can you see so many tens of thousands of Australian plants, and walk from the Tasmanian garden up through the tropical rainforests past the alpine plants to the Red Centre?’

Photos on this page by Andrew Tatnell/Department of the Environment

Smoking ceremony



Auntie Janet spoke to the gathering about the Garden, welcomed everyone to country and conducted a smoking ceremony.

Where does all the red sand come from?

Totalling 4,000 square metres in size, the Red Centre Garden (RCG) is the Gardens’ largest and most intensively planned project. A range of materials was transported on-site including 800 tons of rock, consisting of 500 tons of Jasperite from Stanthorpe QLD and 300 tons of Ironstone recycled from development of Crace ACT. Additional sand and soil is comprised of 900 tons of red sand from Cranbourne Victoria, 3600 tons of silt-chenopod-sand and subsurface drainage sand from Canberra and 120 tons of riverbed sand from a sandstone quarry waste pile in the southern highlands. The large *Livistona mariae* tree is 40 years old, making it the oldest plant in the RCG. The Garden’s centrepiece is a public pavement artwork based on a painting by Aboriginal artist Teresa Purla McKeeman and sponsored by the Friends.

Sabrina Sonntag



Garden Grand Opening

October 2013

Brooch by Anne Phillips

Artwork and artist



Peter Byron

Teresa Purla McKeeman is delighted with the pavement artwork which is based on her painting. 'It looks just beautiful. The whole garden makes me feel just like I'm home.'

Thorny Devil (*Moloch horridus*)



Barbara Poldger

These iconic Australian lizards are one of approximately 690 known Australian lizards and, like the ANBG water dragons, they are members of the dragon family, Agamidae.

Their name was derived from Milton's poem *Paradise Lost* where the Canaanite god Moloch is described as a 'horrid king' smeared with blood from human sacrifice. Horridus means rough or spiny. However at maximum size of about 20 cm, with a slow moving mechanical gait and diet solely of ants (they can eat more than 1000 in a meal) their devilish appearance and name are misleading.

Thorny Devils live in sandy spinifex, grassland and scrub. Their mottled colour (which can change according to the amount of sunlight and surrounds) is an excellent camouflage. If subject to attack by a predator they tuck their heads down presenting a horned hump as a distracter. They live for about 20 years. Mates are attracted by elaborate courtship, in which legs are lifted and heads wagged.

Margaret Kilham



Anne Rawson

From the viewing platform, after the official opening

Growing Friends

Yvonne Robinson

Plant sale

Again a successful spring plant sale where we offered special collections in the form of *Telopea* 'Braidwood Brilliant' and *Rhodanthe chlorocephala* ssp *rosea* and *Rhodanthe manglesii* (in seedling punnets).

The hardy waratah *T.* 'Braidwood Brilliant' was the result of a deliberate attempt at the ANBG to hybridise *T. speciosissima* and *T. mongaensis* in 1962. Whilst it is attractive and suited to Canberra, the inflorescences are rather sparse and small (6-8 cm in diameter). Like all waratahs it prefers well drained sandy soils.

The *Rhodanthe* species offered have been popular plants in cultivation for many years because of their colourful display, especially in massed plantings.



What we have been up to

Growing Friends is embarking on a trial of species that have proved difficult (for us) to strike. We will be experimenting with different hormones and cuttings taken at different times of the year. Our first trials were of *Melaleuca* 'Hot Pink' and so far the results look promising for softwood cuttings with lower strength hormones.

Photographic Group

Lesley Jackman



'Birds Behaving Badly – any more chips?' Inspired by 'Magpies', a poem by Judith Wright and exhibited by Elizabeth Kay in the 'Words of Inspiration' display.

The Friends' Photographic Group has had a busy year, including a range of interesting speakers at our last-Friday-of-the-month meetings. One of our more ambitious projects was a display of photographs for the Bush Capital weekend, called 'Words of Inspiration'. This involved photographs of plants, animals and landscape scenes, taken around the Gardens, inspired by Australian literature. There were, for example and not surprisingly, a number of photographs of kookaburras influenced by the Marion Sinclair nursery rhyme, *The Kookaburra Song*.

We are now working on an exhibition to be held in the Visitor Centre from February to March next year, also involving photographs from around the Gardens.



'Satin Bower Bird' Inspired by 'Satin Bower-Birds', a poem by Judith Wright and exhibited by Graham Brown in the 'Words of Inspiration' display.

Botanic Art Groups

Helen Jensma



Grevillea iaspicula
Painting by Kerrie Nogrady

The BAG ladies have been busy again, preparing their beautiful artwork for their seventh annual exhibition to be held in the Visitor Centre from 22 March to 21 April 2014. We would like to invite all Friends to come to the Special Friends Preview on 21 March 2014. You will have the opportunity to purchase a painting prior to

the exhibition opening and so support the work of the Friends of the ANBG.

During the Easter weekend, there will be an Easter special sale of smaller botanical works, not necessarily Australian natives, which will give everyone another chance to purchase a one-off masterpiece.

Our thanks to Cornelia Buchen-Osmond, who provided the exhibition image in 2013, for donating a painting for the raffle for the 2014 exhibition.

Keeping up with the Guides

Glenys Bishop, Guides Convenor

Seven guides and two spouses recently attended the 13th Australasian Conference for Volunteer Guides in Botanic Gardens in Christchurch, New Zealand. This conference marked the 150th anniversary of the Christchurch Botanic Gardens which has some grand old specimens of English oaks, giant sequoias and beeches, planted in the 19th century. These are complemented by their New Zealand native and Gondwana collections, as well as beautiful displays of rhododendrons.

One night during the conference we were all shaken in our beds by a tremor that measured 4.1 on the Richter scale. However, this did not detract from our enjoyment of the next day's excursions.

Back in Canberra, the guides' preparation for the Bush Capital weekend culminated in 12 guides doing one-hour shifts as roving guides in the Red Centre Garden. This requires different guiding techniques from leading a one-hour walk and it was fun to walk around the Red Centre Garden, chatting to lots of people for two or three minutes at a time. The most common question was 'Where did the red sand come from?'

Alan Munnis



Guides helping staff with the final plantout of the Red Centre Garden in preparation for the official opening

From the Bookshop

with Tom Butt, Shop Manager



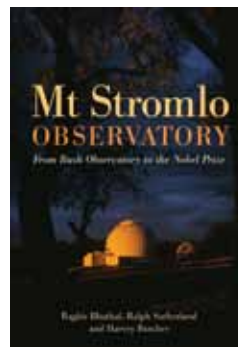
Australian Native Plants

John W Wrigley and Murray Fagg

6th Edition Hardcover, 696 pages

Full colour photographs \$99.95

As we all know, this is the most comprehensive and up-to-date book on the market and is indispensable for anyone interested in growing native plants anywhere in Australia, whether they be home gardeners, landscapers or professional horticulturists. It provides a wealth of information on literally thousands of native plants, their properties, cultivation and propagation. The introductory chapters provide sound practical advice on the collection and propagation of plant material, dealing with pests and diseases, selection of plants, fertilising your plants, plant management and landscaping.



Mt Stromlo Observatory

Ragbir Bhathal (Uni of Western Sydney), Ralph Sutherland (ANU) and Harvey Butcher

\$39.95 Hardcover, 344 pages

The story of the Mt Stromlo Observatory in Canberra began with W.G. Duffield's idealism and vision in 1905. Beginning life as a government department, it later became an optical munitions factory producing gun sights and telescopes during the Second World War, before it then changed its focus to astrophysics—the new astronomy. The astronomers built new, better and larger telescopes to unravel the secrets of the universe. The Observatory and its researchers have helped determine how old the universe is, participated in the largest survey of galaxies in the universe, and helped to show us that the universal expansion is accelerating—research that led to Brian Schmidt and his international team being awarded the 2011 Nobel Prize in Physics.

These and other major discoveries are detailed in this fascinating book about one of the great observatories in the world.

Friends Briefs

Breakfast with the birds

Breakfast with the Birds celebrated a successful 10th anniversary this year, with over 150 participants joining their bird guides for an early morning walk through the Gardens.

The numerous flowering plants attracted significant numbers of birds including Wattle Birds, Crimson Rosellas, King Parrots, Silver Eyes and Gang Gangs. Highlights were the Bower Bird performing in front of his bower for the attendant females; honeyeaters including Eastern Spinebills, which were plentiful around the flowering Grevilleas; and the Tawny Frogmouth with her young gazing down from their high nest.

A bonus for one of the groups on 24 September was the sighting of a Regent Honeyeater, and participants on 12 October were lucky enough to see a Scarlet Honeyeater, both of which are very rare birds in the ACT region. Participants completed their Gardens visit with a delicious breakfast at Floresco.

Truly a great way to start the day!

Louise Muir and Mary Lovett



Julian Robinson

The Scarlet Honeyeater is a strikingly beautiful bird and is usually seen in much warmer climes.

Bush Capital Celebrations



Helen McHugh

The first weekend of November was a special and very busy one for the Gardens. On the weekend after the official launch of the Red Centre Garden the community was invited to a celebratory event to explore the new Garden and to join in a wide range of 'bush' activities on the Eucalypt Lawn.

The Guides provided interpretation of the new Garden, while on the Eucalypt Lawn there were non-stop activities including music, storytelling, dance, guided walks, basket weaving, felt making, johnny cake making, and a variety of displays. Delicious bush themed food was also available.

The Eucalypt Lawn was a colourful sight with stalls selling a range of beautiful handmade items, and the addition of the Canberra Felters Centenary Poles, and the Magic Mushroom Music Garden.

On the Saturday evening, the Gum Tree Hop was a family affair with many enjoying music by The Fuelers, Sparrow Folk and Hashemoto. Although numbers were low, those present enjoyed the great music and the wonderful atmosphere of the Eucalypt Lawn at night. Centenary Correa Bells lights also added colour and a botanical glow to the evening.

The Friends provided a shuttle bus service all weekend up to the Eucalypt Lawn. Many visitors were new to the Gardens, and said they had come especially to see the new Red Centre Garden.

Our thanks to the ACT Government and 2CA/2CC for their support of this event.

AFBG conference

Write in your diary the biannual conference of the Association of Friends of Botanic Gardens at the Gold Coast Regional Botanic Garden from 8-10 August 2014 on the theme: 'Growing matters...Growing Friends, Growing gardens'. See www.friendsgcrbg.org.au

Quiet Achiever award

Congratulations to our own volunteer coordinator of the Gardens' 'Seedy Vols' program, John Fitzgerald, on his recent Landcare award. John was recognised for his dedicated work with Friends of Grasslands and many other community groups, including the Friends, to protect and rehabilitate local box gum woodlands and temperate native grasslands. John's knowledge of grasses is a great asset on Gardens' seed collecting trips where he has patiently taught other Seedy Vols to identify and admire our many local species.



John Fitzgerald is presented with his award by Minister Corbell as joint winner of the ACT Government's Quiet Achiever Award of the ACT Landcare awards for 2013

Wollemi Pine

The Friends have facilitated the donation of a further Wollemi pine to the Gardens. The pine was grown by Shirley Rutherford in Bombala and will be included in the small collection at the Gardens that may in the future form a dedicated Wollemi pine forest.

Twilight Dinner

At the Friends 2014 Twilight Dinner, after pre-dinner drinks and a delicious dinner, Catriona Anderson from the National Library of Australia, will share with Friends her insight into the abundance and relevance of the Library's Special Collections. She will focus on botanical resources, and will tell us about the *Banks' Florilegium* in anticipation of the Friends' viewings of the *Florilegium* in March. She will also enlighten us on ways in which we can access the collections. Members of the Friends may invite one guest. The cost is \$70 per person which includes pre-dinner drink, canapés, main course, dessert, and tea/coffee. Additional wine, beer and soft drinks may be purchased at Floresco.

Booking form on back page.

Walcott garden

Ben and Ros Walcott opened their magnificent native garden as an Open Garden on 26/27 October. The garden now has over 4000 native plants representing over 700 different species. The meadow is especially interesting and was planted in 2003 with over 20,000 grasses, lilies and forb seedlings. The Friends provided guides and volunteers on the gate and the Walcotts kindly donated part of the proceeds to the Friends.

Alison McKenzie lecture



Alison's photo looks on at her inaugural lecture, given by Martin Butterfield on 'Canberra's gardens and birds', two things loved by Alison. Alison's two sisters and her nephew were special guests at the lecture.

Recovering Brindabellas



Alan Munnis

Saturday 19 October was a perfect day for 15 Friends to visit the Brindabellas. Thanks to Rosemary Purdie we saw a lot more than just the scenery. Our first stop was at what was the site of a softwood plantation; it has been allowed to regenerate naturally and is now covered with many Fabaceae, which germinated from seeds that were dormant in the pine forest for many years and which were well and truly scarified by the fire. A walk in a thicket of Alpine Ash (*Eucalyptus delegatensis*) saplings was a very different experience. This regenerating forest is the result of mass seeding after the fire. Higher up, the Snow Gums (*E. pauciflora*), regenerating from lignotubers, were not as tall as the Alpine Ash. This very enjoyable day ended with lunch at the Mt Franklin shelter and a walk part of the way up Mt Franklin. Many thanks to Rosemary for a memorable day in the Brindies.

Jane Keogh

ANBG 2014 Calendar



The Bookshop's 2014 Calendar has some wonderful images of plants from the Gardens. Images are from the Australian Plant Image Index (APII), local photographer David Woltschenko, and our own Sue Dowling's daughter, Kira.

Price: \$12

CREATIVE FRIENDS

Photographs



Fanny Karouta-Manasse invites you to her exhibition 'Natural Views' at Kaori Gallery, cnr London Circuit and Hobart Pl. All photos of plants and birds were taken in the ACT, many in the ANBG. Exhibition runs to 7 December.

Ceramics



Cathi Franzi invites you to view her exhibition of ceramics carved and decorated with Australian plants, created in response to the Griffins' vision of revegetating Canberra's hills each in a single colour of flowering native plants. Exhibition runs to 14 December at Craft and Design Centre above CMAG.

Paintings



Frances McMahon, who painted the birds in the Gardens' bird brochure, now has beautiful (blank) bird greeting cards for your enjoyment—14 of her bird paintings on 5 x 7" greeting cards. They look much nicer than 'usual' Christmas cards. To see cards or order go to: www.frances-mcmahon.artistwebsites.com.

Garden Shorts

A really rare plant

Over 1500 *Lepidium ginninderrense* plants were successfully translocated into the wild across two new sites at Crace and Dunlop ACT in September 2013. Listed as vulnerable nationally and endangered in the ACT, the Ginninderra Peppercress only grows in small parts of Lawson and Mitchell—two suburbs of Canberra—in a combined area of just 300 square metres. The new plantings now represent the biggest populations in the wild for the species. The planting took place in partnership with Greening Australia, local Land Care volunteers and the ACT Government. The new populations, and the 200,000 seeds the Gardens has stored in the National Seed Bank, provide insurance against events such as bushfire, prolonged drought or human activities that may damage remaining wild populations.



The year in figures

The Gardens has 59 full-time and part-time staff. Over 425,300 people visited in 2012-13, including 11,195 school students from 250 schools. We added 6,000 new plants into the living collection and 283 new collections to the National Seed Bank, including 55 from the Bush Blitz visit to Henbury Station NT. The Gardens have added 4,790 images to the Australian Plant

Image Index to total 83,758 images accessible on the internet. We have placed 2,084 labels on plants in 92 sections along the Main path and Rock Garden. And 8,450 specimens were added to the Herbarium database.

Island invaders



Brendan Lepschi and Bronwyn Collins from the Australian National Herbarium recently spent two weeks on Norfolk Island surveying the introduced flora of the island. The two have joined forces with a group of plant pathologists, entomologists, veterinarians, bee specialists and botanists who are regularly visiting the island over a period of 18 months as part of an island-wide quarantine survey. They considered it a successful trip. 265 of the 303 collections they made, representing 230 species, were introduced plants. A follow up survey is planned for late summer in order to capture summer flowering and fruiting species.

A new face



Peter Feilen began working as a Gardens' horticulturalist in January this year. Selected with 13 others from over 100 applicants worldwide, he spent the last three years completing his Diploma of Horticulture at the Royal Botanic Gardens Kew with formal study and rotation of placements through the Gardens. Prior to Kew he completed

apprenticeships in Horticulture at the Royal Botanic Gardens Sydney and Hunter Valley Gardens (two years spent at each). Peter is also a qualified arborist and studied through the Ryde TAFE in Sydney. He is currently curating and caring for the Concourse, the Tasmanian Rainforest, the Education and Cafe Lawn areas, the Ellis Rowan and surrounding areas of the VC, Admin and Botany buildings.

*Garden shorts compiled
by Sabrina Sonntag*

Public Art Plan

The ANBG has recently approved a revised Public Art Policy and Masterplan that was prepared by Pamille Berg Consulting. Pamille developed the original Masterplan in 2001 and helped form the Public Art Advisory Committee. The original Masterplan was the catalyst for the 'sentinel bollards' that are a highly respected public art installation. To assist with the implementation of the revised Masterplan and reviewing public art proposals, such as the Red Centre pavement, the Public Art Advisory Committee has been reformed and comprises experts in public art and landscape design, including a representative from the Friends and the staff. Input on the draft Masterplan was provided from the Public Art Advisory Committee and the Friends Council and Pamille Berg conducted an information session on the draft Masterplan for Friends and staff. The Public Art Policy and Masterplan can be viewed at www.anbg.gov.au/gardens

Text and photo by Peter Byron



Pamille Berg and Senator Birmingham at the Pavement artwork on Red Centre opening day.

What's on at the Gardens

December - April

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.

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

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

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.

Summer events and activities

SPECIAL EVENT!

Thursday 5 December 12.30 pm
A walk in the Red Centre Garden with Pamille Berg and David Taylor

Finish the Thursday Talks for 2013 with a walk in the Red Centre Garden to hear about the artworks from Pamille and the plants from David. Meet at the Ducrou Pavilion at 12.30 pm. Transport will leave the Visitor Information Centre at 12.20 pm for anyone who would welcome a lift. No bookings needed. A gold coin donation to the Friends would be appreciated.



*Bush
Magic
Story
Time*

**Friday 6 December and
first Friday of every month**

Enjoy stories and craft activities in the Gardens 10.00 - 11.00 am

\$5 per child

Suitable for pre-schoolers

Follow the signs from the Cafe bridge

SUNSET CINEMA

**Wed, Thurs, Fri and Sat evenings
until 21 December at 7.00 pm**



Enjoy latest releases, children's and classic films, in the beautiful garden surrounds. Bring a picnic or purchase your dinner at the event with options from Crust Pizza, Maggie Beer and Hellenic Premium Catering to enhance your cinema experience. Cost: Various ticket and seating price options at: www.sunsetcinema.com.au/canberra

EXHIBITION

**To Sunday 12 January
Friends School Photography
Competition Exhibition
Visitor Centre Gallery**

Some of the winning photos are shown on page 2.

CULTIVATED CHATS

**Second Tuesday every month
Floresco in the Gardens Cafe
\$9.50 per person**

Enjoy Devonshire Tea and talks by Gardens' staff or a member of Friends.



SUMMER SOUNDS CONCERTS

**January 2014
Eucalypt Lawn**

Enjoy a sparkling summer evening with family and friends at Canberra's popular outdoor music series. Cost: Entry by donation to the Friends. See full program of concerts on the Gardens website: www.anbg.gov.au.

Summer events and activities

Delicious afterDARK



**Fridays 3 January, 7 February,
14 February, and 7 March**
**Various starting times due to
daylight saving variation**
Floresco Cafe

An evening of fine wine and delicious food, followed by a Ranger guided tour of the Gardens by night. Tours suitable for adults only. Cost: various depending on tour options. Bookings essential www.anbg.gov.au/gardens/whatson

EXHIBITION

**Wednesday 15 January to
Sunday 16 February**
**'Branching out in the Botanic
Gardens' in Visitor Centre Gallery**

Paintings by local artist Margaret Hadfield (Zorgdrager), focusing on branches of Eucalyptus and Acacia (some from ANBG) in oil, acrylics and ink. Margaret is known for her paintings of gum tree branches some of which can be up to seven canvases wide.

101 GARDENING WORKSHOPS

Starting in February
10am – 12noon

Crosbie Morrison Room

Various horticultural topics from plant propagation to garden design. Full program online early January 2014. Cost: \$30 includes morning tea, Bookings essential www.anbg.gov.au/gardens/whatson. Check the Gardens' website

OPTUS FLIX IN THE STIX



Saturday 1 February 6.30 pm
Eucalypt Lawn

Under a starry night sky, Flix in the Stix is a unique night out with short film, live music from Eskimo Joe and some side-splitting comedy. Cost: Various ticket and seating price options. www.flixinthestix.com.au/canberra

EXHIBITION

**Wednesday 19 February to
Sunday 16 March**
Friends Photography Exhibition
Visitor Centre Gallery

The Friends of the ANBG Photographic Group will exhibit in the ANBG Visitor Centre a collection of photographs taken in the Gardens and inspired by the animals, birds, plants and landscapes to be found there.



Photograph by Ann Eldridge. Photographed near the café, April 2013. Inspired by 'Kookaburra', a nursery rhyme by Marion Sinclair.

TWILIGHT DINNER

Thursday 20 February at 6.30 pm
for drinks and canapés on the
Floresco terrace
then dinner and a great speaker
Booking form on back page

VIEWING BANKS FLORILEGIUM

**Wednesday 19 March, 1.30 pm
and 2.45 pm**
National Library of Australia
(Friends members only)

Friends are offered an exclusive opportunity to view the *Banks' Florilegium* in the Pictures Collection of the Library. Choose between two sessions: 1.30 pm or 2.45 pm. Each viewing will be one hour. Meet in the foyer of the Library 15 minutes ahead of the session starting time. Parking around the NLA is very tight, so allow plenty of time to find parking. Numbers are limited and bookings are essential by phone: 62558441 or email: bookings@friendsanbg.org.au indicating name/s, phone number and time preferred.



Capparis lucida Plate 6 from *Banks' Florilegium*

art in the gardens with friends

Friends' preview
1.00 - 4.30pm, Friday 21 March 2014

Annual exhibition
The Friends' Botanic Art Groups
22 March - 21 April 2014

Christmas coralbells - Fernid Angraaly

Talks February to April 2014

Thursday 6 February 12.30 pm
Mark Carmody 'It's all about P: postie, plants, people and places'

Mark will launch the 2014 program by talking about his 'postie bike' trip after retiring from the ABC.

Thursday 13 February 12.30 pm
Matthew Higgins 'Surveyors at the snowline'

Matthew will look at why the ACT border is where it is, who the surveyors were, how they marked the border and what they experienced.

Thursday 20 February 12.30 pm
Anna See, 'Centenary Canberra BioBlitz: bouquets and bush-bats'

Anna will report on the first Canberra BioBlitz, a Centenary event which sought to discover, identify and record the region's biodiversity.

Thursday 27 February 12.30 pm
Dr Mark Clements 'Recently revealed secrets of orchids above and below ground'

Mark will talk about some recently revealed secrets of orchids in Australia, the South-West Pacific and Melanesia.

Thursday 6 March 12.30 pm
Dr Lisa Doucette 'The Grassland Earless Dragon: Canberra's most endangered reptile'



Lisa will discuss the decline of this local species and the delights and dilemmas of establishing a breeding colony at University of Canberra.

Thursday 13 March 12.30 pm
Dr Michael Jones 'The Cotter heritage story'



Michael will discuss his 2011 book on the historical setting of the Cotter, Canberra's most precious water catchment area.

Thursday 20 March 12.30 pm
Dr Tim Entwisle 'A year or two at Kew'

Tim will talk about working as Director of Conservation, Living Collections and Estates at Kew.

Thursday 27 March 12.30 pm
Dr Rana Munns 'Improving the salt tolerance of wheat'

Rana, whose research area is stress physiology, will discuss her CSIRO team's research to improve salt tolerance of wheat.

Thursday 3 April 12.30 pm
Lydia Guja 'Seed biology and seed conservation of endangered plants at the National Seed Bank'

Lydia will discuss the unprecedented threat to the Australian Alps from climate change and fire, inter alia, and their place within the ANBG's seed conservation and research program.

Thursday 10 April 12.30 pm
Simon Gould 'The regeneration of Australia's landscape imperative'

Simon will discuss the role of the Soils for Life program in encouraging change in managing agricultural landscapes.

Thursday 17 April 12.30 pm
Trevor Murray 'Crested Pigeons: communicating on the wings of sound'

Trevor will discuss research on the Crested Pigeon's use of non-verbal communication of danger in the ANBG and surrounding suburbs.

Thursday 24 April 12.30 pm
Dr Jake Gillen 'Introducing the landscape ecology of SA's Cooper Creek floodplain region'



Jake will discuss the main vegetation communities encountered within the region and the factors driving their distribution, both across the floodplain and down the Cooper Creek system.



where
friends
meet to eat

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enquiries@hellenicpremiumcatering.com.au

2014 Friends Twilight Dinner

The Friends will round out Canberra's Centenary celebrations with our 2014 Twilight Dinner with a floral theme. Our guest speaker Catriona Anderson from the Pictures and Manuscripts Branch of the National Library of Australia will speak about the abundance and relevance of the Library's Special Collections, especially botanical resources, and will introduce the *Banks' Florilegium* in anticipation of the Friends' viewings of the *Florilegium* in March.

WHEN: Thursday 20 February 2014, commencing at 6.30 pm for drinks and canapés on the Floresco terrace.

COST: \$70 per person (includes pre-dinner drink, canapés, main course, dessert, tea/coffee). Additional wine, beer and soft drinks may be purchased at Floresco.

NO BYO.

(Members of the Friends may invite one guest)

ENQUIRIES and PHONE BOOKINGS: Jan Finley 6255 8441 or Barbara Podger 6247 7188; or email: twilightdinner@friendsanbg.org.au

BOOKING FORM:

Name: _____

Phone: _____

Email address: _____

Number of tickets @ \$70 _____ Amount due: \$ _____

Cheque enclosed (to: Friends of the ANBG)

Direct Deposit See below for details

Mastercard

Visa

Card No: _____ Expiry Date: __ / __ - __

Name on card _____
(PLEASE PRINT)

Signature: _____

Any dietary requirements? _____

RSVP: Bookings and payment must be received by Sunday 16 February 2014.

Payment may be made by credit card, by cheque, money order, or direct deposit.

Direct deposit to Friends of the ANBG, BSB 082902, A/c No 176544896, with reference TD and your last name. Note: if paying by Direct deposit, please ensure you also provide above booking information by email, phone or mail.

Phone bookings may be made to Jan or Barbara on the above phone numbers.

Mail bookings to: 'Friends Dinner', Friends of the ANBG, GPO Box 1777, Canberra, ACT, 2601.

Or drop in the Friends mail box in the Visitor Centre at the Gardens.

Refund policy: refunds may be given at the discretion of the organisers if booking cancelled at least one week prior to the event.

**Note: tickets will not be issued
but your booking will be confirmed via email or phone.**

Friends' Benefits

As a Friend you are entitled to:

Three issues of *Fronds* a year

Free parking pass

Botanical Bookshop – a discount on most items

Discount at Floresco cafe

You also get:

Advance details of lectures

Advance bookings for some events

Discounts on some events

ANBG library membership – borrow books, serials, videos, DVDs plus use of computers and interactive CD ROMs

Function facilities – special rates for functions at ANBG

And opportunities to:

Join Botanical Art Groups, Growing Friends

Photographic Group

Plant Science Group

Assist with Gardens research projects

Become a Guide

Relax in the Friends Lounge – in the Ellis Rowan Building, open to members 9.30 am to 4.30 pm.

Relax with tea/coffee and lots of interesting reading.

*The
Botanical
Bookshop*

www.botanicalbookshop.com.au

always welcomes Friends!

with a 10% discount:

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- on purchase of gift vouchers
- on production of your membership card
- to the person whose name is on this card

(no discount on redemption of gift voucher)