

Newsletter of the Friends of the Australian National Botanic Gardens Number 68 August 2011





Patron: His Excellency Mr Michael Bryce Vice Patron Mrs Marlena Jeffery David Coutts President Vice President Barbara Podger John Connolly Secretary Treasurer Marion Jones Membership Secretary Barbara Scott Public Officer **David Coutts General Committee** Don Beer Anne Campbell

> Lesley Jackman Andv Rawlinson Warwick Wright

Social Events Thursday Talks Fronds Committee Jan Finley Warwick Wright Margaret Clarke Barbara Podger

Anne Rawson Kath Holtzaoffel

Growing Friends Botanic Art Groups Helen Hinton Photographic Group Sheila Cudmore Exec. Director, ANBG Dr Judy West

Friends of ANBG, GPO Box 1777 Post: Canberra ACT 2601 Australia

Telephone: (02) 6250 9548 (messages) Internet: www.friendsanbg.org.au

Fmail addresses:

info@friendsanbg.org.au membership@friendsanbg.org.au newsletter@friendsanbg.org.au

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

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

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Cover: Oreomyrrhis eriopoda (Australian Caraway), a perennial herb 5-30 cm high which is common above the treeline, in tall alpine herbfields and heaths. Photo by Gemma Hoyle.



Welcome to His **Excellency** Mr Michael Bryce, our new **Patron**

His Excellency Mr Michael Bryce, AM AE has accepted the role of Patron of the Friends, effective from 28 May 2011. The Friends are delighted that Mr Bryce has agreed to take on this role, succeeding Mrs Marlena Jeffery. Mrs Jeffery is very happy to continue her association with Friends by assuming the role of Vice Patron and her ongoing support is much appreciated.

Mr Bryce is a highly regarded architect and was made a Member of the Order of Australia (AM) for service as an architect to the development of industrial, graphic and commercial design reflecting Australian heritage and the environment, to education and to the community. His commitment to the Australian National Botanic Gardens will be of great value in continuing to grow and strengthen this vital national institution.

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Seed partnerships

Lucy Sutherland



Seed hunters rediscover the Tarcoola pea. Seed hunter Thai NSW Seedbank collectors found Swainsona fla-Te, collects seeds from the Tarcoola pea in northern South Australia. Photo: SA Seed Conservation Centre.



vicarinata for the first time in 45 years after the duced populations. Photo: Anne Cochrane 2010 rains in NSW. Photo: G. Errington.



Using seed for species recovery. Collecting seed from reintro-

Dr Lucy Sutherland is National Coordinator for the Australian Seed Bank Partnership

In 2001, the Royal Botanic Gardens Kew launched the Millennium Seed Bank Partnership (MSBP) to store seeds for future use as an insurance policy against the extinction of plants in the wild. One hundred and twenty organisations in more than 50 countries are partners in the MSBP. When the first phase of the MSB project came to an end in 2010, a representative third of Australia's flora had been collected, about 25 per cent of our threatened plants had been banked, a new generation of seed scientists had been trained and a network of seed researchers, collectors and technicians had been established.

To build on this 10 year legacy, the Australian Seed Bank Partnership (ASBP) was established. Its members include all the capital city botanic gardens, the Royal Botanic Gardens Kew, as well as the Australian Network for Plant Conservation, Greening Australia, plus Griffith and Queensland universities to support the work of the Brisbane Botanic Gardens. Some of these were members of the Kew partnership; some are new.

The aim of the ASBP is to safeguard Australia's flora against extinction by 2020 through a national network of native seed banks. A number of the seed collections are also banked at Kew, and these duplicate collections provide an extra insurance policy.

This safeguarding includes:

- collecting and storing seed in secure seed banks as a long term insurance against loss of Australia's flora
- unlocking the secrets of seeds by researching dormancy, germination and viability to help improve the outcomes of conservation and restoration work
- training new seed scientists, collectors and restorers to improve practices and support the conservation and restoration of biodiverse and resilient ecosystems

sharing seed knowledge through a virtual seed bank.

Within this wide framework, the ASBP has four priorities. The '1000 Species Project' involves Partners collecting the seeds of 1000 species that are not currently represented either in the MSB or within any Australian collection. Another priority is the Alpine and Montane Program, bringing together the expertise of several botanic gardens to combat the expected loss of biodiversity through changing climates. This work involves a national approach to seed collection and seed based research to determine species resilience, community thresholds and translocation potential.

The Integrated Restoration of Understorey Species (IRUS) Program aims to overcome some of the critical gaps in knowledge on the practical techniques for 'cracking the germination code' for understorey plants. This work will create new knowledge for practitioners to advance on-ground restoration practices. Finally, Australia's conservation seed banks have captured large quantities of data on flowering periods and seed behaviour and storage characteristics. The Partnership is working with the Atlas of Living Australia to create an accessible online seed

The ANBG's seed science program is growing. Our current priority is to build our collection of alpine flora and species from grasslands of the Southern Highlands. Later in 2011, a Seed Researcher will be appointed for the next two years to strengthen the seed research program at the ANBG.

Friends have an opportunity to support the ANBG's seed conservation and research work by volunteering on the new program focussing on collecting seed from local plants to augment the ANBG colection (see 'Feeling seedy? page 15) as well as the Alpine Seed Research Project (see page 5).





Alpine seed research progress

Adrienne Nicotra

In last August's *Fronds* issue Gemma Hoyle reported on 'The Alpine Seed Research Project . . . so far'. Much has happened in the year since and the Friends have been integrally involved every step of the way. What follows is a brief summary of what the project has achieved to date.

As you may know, we conducted six seed collecting trips this summer with wonderful Friends support. As a result many new alpine seed collections are now stored for long-term conservation, and associated research, in the ANBG seed bank; we made 63 collections in 2010–11 field season, and 99 the year before. In addition, students, ANBG staff and other ANU researchers made several trips to the Alps to set up and monitor experiments in the field.

We have put considerable effort into understanding the dormancy and germination strategies of a wide range of alpine species using a 'move-along experiment'. This experiment now includes more than 80 seed collections from nearly 50 species. The study is helping us to identify germination strategies of alpine species, many of which appear to include seed dormancy, and will lead to investigations of the ecological and environmental factors that influence these strategies. Initial results were discussed at the third Seed Ecology Conference in Utah in June 2010 and then presented at the Ecological Society of Australia (ESA) annual meeting in Canberra

in December. So far the study has been very well received and the team continues to collect and analyse data.

Honours student Deborah Segal presented her work at the ESA meeting and was awarded the prize for best inaugural talk. Deb's work examined effects of altitude on vegetative and reproductive traits in eight alpine plant species. Her study demonstrated that within a species, plants grown at higher altitudes were shorter and produced larger seeds. Deb also found that the altitude at the site of seed development can affect early seedling growth and even flowering time in plants grown in controlled common environments. Deb is currently writing up her work for publication.

Honours student Helen Cordiner began her research in February 2011. Helen is examining whether *Aciphylla glacialis* (Alpine Celery) seeds developed at low and high altitudes differ in their dormancy status, dormancy alleviation requirements and resulting seedling traits. We know that dormancy of *A. glacialis* is alleviated over the winter, enabling seeds to germinate in spring. But do seeds from different altitudes require different durations of winter, and what will this mean for the species in a future, warmer climate? Helen can often be found in the seed bank lab dissecting her seeds and tallying germination results. We look forward to the results of her project at the end of the year.





Another question we tackled this year was; do seeds from low (warmer, wetter) versus high (cooler, drier) altitudes germinate, grow and survive life in the field better at their source altitude? This project was led by Dr Jose Ramirez Valiente who visited the Nicotra lab from Spain between October 2010 and March 2011. Jose's work showed that seedlings of co-occurring species differ markedly in their sensitivity to water availability and that small scale differences in water availability may be more important than larger scale variation in altitude. As a follow up to this project we are currently conducting a glasshouse experiment that examines growth and physiological responses of seedlings to water stress conditions.

While our field sites are beneath snow we will continue our lab and glasshouse experiments as well as analyses of the data collected to date. In July Adrienne and Gemma will speak at the International Botanical Congress in Melbourne on project-related topics, and in September Adrienne will present some of our results to the European Ecological Congress in Spain.

With continued support from the Friends we also look forward to a new web page being developed by ANU student Catherine Ross. Catherine will bring her biological background and science communication experience together to help us develop a web resource aimed primarily at high school students. We often meet and talk with these students in the field, and we look forward to being able to direct them to the web page so they can follow or even get involved with the project after their visit to the mountains.

As Spring approaches we will begin planning for the upcoming field season and will look forward to the wonderful support and input from the ANBG Friends.

Follow the seed journey in photos. From left: Seed collecting east side of Lake Albina, photo by Bindi Vanzella; Aciphylla glacialis, photo by Anne Campbell; A. glacialis seed for ANU research, photo by Bindi Vanzella; Temporary seed drying on ping-pong table, photo by Anne Campbell. Journey continued next page.

Alpine volunteer opportunities

Friends are again invited to participate in Alpine seed collecting trips during the summer months this year. Friends are also being invited to become involved in monitoring plants in the Alpine Research Garden (see page 7). Monitoring will cover a number of aspects, including plant growth, flowering and seed set.

For further information and to register your interest please contact Craig Cosgrove on email: Craig. Cosgrove@environment.gov.au or phone 6250 9522. Information on seed collecting and monitoring is also being made available on the Friends' website.

The Alpine Research Project is being jointly undertaken by the Australian National University, the ANBG, the University of Queensland and the Friends, with support from NSW Parks. The Friends provide in kind support and \$22,000 in each of the three years of the Project, which has received an Australian Research Council Linkage Grant of \$253,000.





A volunteer seed collector

Anne Campbell

In the first quarter of this year, there have been a number of trips to collect seed for the Alpine Seed Research Project. I was delighted to have the opportunity to participate in the one in early March along with another ANBG Friend, Robyn Diamond. It was a privilege to have this opportunity to participate and, as a trained laboratory-based scientist, to get some understanding of the challenges of field work.

We joined Greg Flowers from the ANBG Nursery, ANU researcher Dr Adrienne Nicotra and two students, who were busy measuring photosynthesis of Mountain Celery in situ, and a visiting volunteer from UK, Sam Bentley-Toon, as well as Meredith Cosgrove from the Herbarium and Bindi Vanzella from Greening Australia.

We spent three days in all (two half days and one full day of collecting) and were blessed with fine, albeit windy, weather in the alpine region adjacent to Charlotte Pass, where we stayed at the Southern Cross Alps Chalet in comfortable self-catering accommodation. The views are spectacular whether looking up to the Main Range or down and across from it.

We operated as two teams, one with Adrienne and one with Greg, in order to broaden the areas for collection to include Mount Stilwell, the slopes above Lake Albinareached by a quick 'gallop' along the Main Path from Rawson's Pass to which we drove-Mount Kosciuszko

and Lake Cootapatamba, as well as around Merritt's Creek below Seaman's Hut, and Betts Creek on the road from Perisher to Charlotte Pass.

One of our objectives was to collect seeds of the Mountain Celery (Aciphylla glacialis) from high and low altitude populations, collecting approximately 3,000 seeds per population. This proved much easier for the lower altitude population at Merrit's Creek where the Mountain Celery was not only abundant but the seeds were fully mature.

These seeds are to be used in experiments by an honours student to look at whether populations from different altitudes require different conditions to alleviate dormancy-an indicator of their likely responsiveness to climate change.

We also collected seed from a range of other plants eg: Celmisia species, Chionochloa frigida (Ribbony grass, the largest of the Alpine grasses which is also endemic to the Kosciuszko National Park), Deyeuxia crassiuscula (Coarse Bent Grass), Austrodanthonia alpicola (Alpine Grass; Crag Wallaby Grass) and in the cracks of the paving stones of the Main Path (Rawson's Pass to Lake Albina) Neopaxia australasica (White Purslane).

On the last day, Greg Flower's team set out to march steadily from the road at Betts Creek to a distant point to start collecting but found much of interest within about



50 metres, in what was a rather boggy area. They spent the morning collecting Aciphylla simplicifolia (Mountain Aciphyll), Euphrasia collina ssp glacialis (Snow Eyebright), Ranunculus clivicola, or perhaps the less desirable R. graniticola ('Buttercup' flower type) and Oschatzia cuneifolia (Wedge Oschatzia). The most challenging was Herpolirion novae-zelandiae (Sky Lily) which is rare and requires tweezers, on hands and knees, to excise the seeds from the 'grass mat'.

The Herbarium has to confirm identifications, and it requires a whole plant specimen as well as seeds. It is also necessary to ensure that the collection note book is completed on site—not a trivial task.

Once back from the field, we had to spread out the seed to air dry before any further processing at the Seed Bank or the Herbarium. The ping-pong table at the Lodge served as an excellent flat surface for this.

Becoming involved in the alpine collecting trips is a rewarding experience (see also Margaret Clarke's article in Fronds no.65 August 2010, page 9). Those Friends interested in becoming involved in the alpine seed collecting trips are encouraged to register their interest with the ANBG (see page 5).

Seed journey continued. Photos from left. Petrie dishes of seeds stored in a controlled temperature cabinet in the seed bank at ANBG-the foil covering is simulating snow cover, photo by Barbara Podger; Germinating seeds of Aciphylla glacialis in petrie dish, photo by Barbara Podger; Seeds planted out in the Nursery in a low temperature tunnel, photo by Anne Rawson. A. glacialis in the new alpine research garden in the Rock Garden at ANBG, photo by Barbara Podger.

On right: Seed head of A.glacialis. Photo by Meredith Cosgrove.



Alpine research garden

The Gardens is breaking ground in more ways than one with its new alpine research garden. A small section of the Rock Garden has been re-constructed to provide three new planting areas to grow a selection of plants collected as seed through the Alpine Research Project. Rocks have been relocated to provide crevices and spots with protection from the west (morning sun niches). Different soil mixes are being trialled including some incorporating alpine soil. Plants for the Garden are being grown from seed in the Nursery, where a specially cooled area is provided for them.

Little is currently known about how to actually grow most alpine plants from seeds, so gaining this knowledge may well be vital to the long-term conservation and rehabilitation of species most vulnerable to a changing climate.

Plant performance in the research garden will be monitored. Friends are being invited to participate, see page 5.



Botanical Photographic Group

Lesley Jackman

The ANBG Friends recently established a photography group for members who have an interest in the photography of nature, and native flora in particular.

The plan is for the group to meet regularly at 10.30 am on the last Friday of each month, except for December and January. The meetings will usually begin in the ANBG Theatrette with a presentation on a relevant subject, after which, weather permitting, the members will disperse into the Gardens to take photographs under the guidance of experienced group leaders. At the June meeting, for example, photographer David Wong gave an informative presentation on aperture and its effect on depth of field in photography, after which everyone sallied forth into the Gardens to practise on the long-suffering banksias.



Banksia spinulosa by Maureen Connolly

The group can accommodate a range of skill-levels and include cameras ranging from the highly sophisticated to the rather more basic 'point-and-shoot'.

A committee has been established to run the group, convened by Sheila Cudmore; the other members are Margaret Webber, Graham Brown and Lesley Jackman. Feel free to contact Sheila by email at info@friendsanbg.org.au or on 6288 4817 if you would like more information.

Upcoming meetings

Friday 26 August – members will have an opportunity to display selected photographs on the big screen in the Theatrette.

Friday 30 September - ANBG staff member Helen McHugh will speak on shutter priority.

Growing Friends growing grasses

Yvonne Robinson

SPRING PLANT SALE 19 NOVEMBER Grasses, and lots of other plants for sale

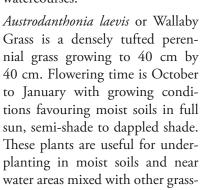
All plants are propagated from material sourced from the ANBG, lovingly tended and sold by the Growing Friends.

Microlaena stipoides is being promoted as an alternative for lawns, replacing the exotic grasses currently used. It is also know as Weeping Rice Grass, a cool season perennial which produces year round green growth. The seedheads are weeping and ripen from December to May. Suited to a range of soil types it survives well in strongly acidic soils. It has high drought and frost tolerance.



A lawn of *Microlaena stipoides* in Landscape Architect, Jennie Curtis' garden in Florey, ACT. Photo Jennie Curtis. at website: http://www.aila.org.au/canberragarden/water/xeriscape.htm

Poa labillardieri is a robust tussock grass with grey/green foliage, 80cm high and wide, needing full to part sun. It is adaptable to most soils but needs a moist site with good drainage. It is frost hardy to -7°C and flowers in spring and summer with delicate, open flower heads. It is common in open forests particularly in moister areas on southern slopes or in gullies and along watercourses.



es and herbs.



Photo by D. Grieg



Photo by P. Ormay

Botanic artists at **Bywong**

Robin McKeown

The Botanic Art Group members were delighted by the invitation of Peter Ollerenshaw to visit his Bywong Nursery, specifically to observe the correas which have been in bloom there during April, May and June. We were especially keen to see Correa 'Canberra Bells', hybridised by Peter and chosen to be the flower for the centenary of Canberra in 2013. 'Canberra Bells' has already been grown on at the ANBG. It is a beautiful plant with red and cream bells.



Peter Ollerenshaw and Correa 'Canberra Bells' and closeup of 'Canberra Bells Both photos by Murray Fagg



We were able to see many other stunning correas at Bywong. These included Correa 'Catie Bec', pale pink bells, flowering in clusters, with a very long flowering time; C. 'Jezabell', rich red pink with bronzed leaves and C. 'Isabell' another beautiful pink. These were growing outside without protection. We saw multitudinous as yet unnamed correa plants with

identification numbers only and flowers in a huge range of shapes and colours and sizes.

As well as admiring many hybridised Grevilleas and Leptospermums, we were intrigued to observe a pendulous form of Eucalyptus camaldulensis, the River Red gum. Called 'Blue Veil' it was hanging gracefully downwards, but could also be grown as an upright weeping tree.

It was very difficult to drag ourselves away from this wonderful selection of new Australian plants and we were all very grateful for the opportunity to visit.

Volunteer guides

Don Beer

The Volunteer Guides are enjoying the enthusiasm and expertise of their new members. Over the last few months the graduates of the training course held last July-August have undergone assessment and received their official guide's badges. Many reported that they found the assessment a very positive and constructive experience.

The examiners were Helen McHugh and two rangers, Dan Carmody and Troy Dare. Helen is the ANBG's new Manager of Public Programs and Education. One of her roles is that of Guides Liaison Officer. She has extensive experience in the field, and we are already benefitting from it.



Guide Deb Hamilton modelling the new shirt. Photo by Barbara Podger

The guides offer free guided walks at 11.00 am. and 2.00 pm each day (except Christmas Day). For a fee of \$4 per person visiting groups may book walks at other times. These 'booked walks' can have special themes, for example, we recently hosted a very large group of 'foodies' for walks relating to bush tucker. These special 'Tuckertime' walks will be available for individuals during Floriade. The Friends use the money raised by booked walks to fund improvements to the Gardens. The popular Wattle Walks will again be offered at 11 am each day of the first week of September. During Floriade both regular daily walks will highlight spring flowers.

The Volunteer Guides have adopted a uniform, or at least a shirt (see photo). Other garments may follow at some future date.



Charles Louis L'Héritier de Brutelle

Max Bourke AM

Late last year I was leading one of the monthly walks put on by Friends of the ACT Arboreta, around the Westbourne Woods. Standing under a beautiful *Eucalyptus obliqua*, I remarked that the man who had described it botanically was the Frenchman L'Héritier. This caused such interest that I thought the life, and death, of this remarkable man was worth spelling out.

Eucalyptus obliqua L'Hér., Sert. Angl. 18 (1788), <u>t</u>. 20 (1792), to give it its full botanical name/description, is commonly known as Messmate, Messmate Stringybark or Tasmanian Oak. Sadly, there are no longer any specimens in the ANBG. It is a tall (up to 90 m) widespread tree that occurs in wet coastal areas from Kangaroo Island around Victoria, Tasmania and up to south-eastern Queensland. Its timber is prized. The species name is because of the odd, strictly eccentric, shape of the leaves (see the beautiful illustration by Redouté; more on him later).

But this tree is more than important among the eucalypts, because it is the species that was described in giving the name of the genus, 'eucalyptus' (Greek for 'well covered'). The type specimen of this tree had been collected by David Nelson on 26 January 1777 at Adventure Bay on Bruny Island during Cook's third voyage. It was passed to Joseph Banks on return to London.

Charles Louis L'Héritier de Brutelle was born of a wealthy Parisian family. Not much is known of his 'formation', as the French say, but at the age of 26 he was given a senior appointment as superintendent of the waters and forests of the Paris region. He enthusiastically threw himself into the study of not only French botany but also exotic species. He adopted, probably under the influence of the botanist Pierre Broussonet, the Linnean system although this was unfashionable in French botanical circles at the time.

In 1775 he was given a judicial post which suggests he

may have had some legal training, as a Counsellor in the *Cour des Aides*. During this period L'Héritier, while working as a judge, employed various plant collectors and began working towards his first major publication, *Stirpes novae aut minus cognitae*. But political events were accelerating in France and this was not published by the time of the Revolution in 1789. Many of the plants described in this work were new to science from the field work of his paid collectors.

Perhaps the most important part of this work was that he also engaged the young Belgian artist Pierre-Joseph Redouté (1759–1840) later to become most famous for his superb works on roses. He was also renowned for teaching painting to Marie Antoinette and the Empress Josephine as well as Empress Marie-Louise of Austria. Redouté was nicknamed 'The Raphael of Flowers'.

But it was L'Héritier who taught him to dissect flowers to better understand them and then acted as his patron for many years.

In 1785 both L'Héritier and Redouté were caught up in the scientific scandal known as the 'Dombey affair'. This involved a complex argument over the ownership of a plant collection from South America made jointly under the auspices of France and Spain, and the rights to publish the results. L'Héritier offered to describe, delineate and pay for publication of the collection himself which enraged the Spanish partners. When France and Spain decided that L'Héritier should hand over the collection to the Royal Museum he packed the collection up and fled to England with Redouté and Broussonet.

Through 'the old boy network', he gained access to Sir Joseph Banks and his wonderful herbarium. In 1786–87 he worked in Kew and among the descriptions of species he did in Banks' collection was that of *Eucalyptus obliqua*,

thereby describing both genus and species. Having managed to also annoy Banks he returned to France just before the Revolution and worked further on his Sertum Anglicum which contained the eucalypt descriptions.

He was in favour of the renewal of France in the early stages of the Revolution, even becoming a commander of a battalion in the National Guard, but lost faith with the revolution as it changed into the Reign of Terror. He then worked at the Jardin du Roi and while he lost his government posts and much of his wealth he kept his head. When the Reign of Terror ended in 1794 he was appointed by the new government to the Commission d'Agriculture et des Arts (I wish we had such a government agency in my time- author).

In 1795 he beat his friend, and another Australian connection Jacques-Julien Houtou de Labillardière, for election as a Member of the Academie des Sciences. He wrote Memoirs on various aspects of agricultural science and botany and occasional articles on plants. But his major works were never published in his lifetime.

By the middle of 1800 Napoleon had ensconced himself as First Consul and defeated the Austrians at the Battle of Marengo. But Paris was a very dangerous place especially at night. L'Héritier walked outside his house on the night of 18 August and was struck down and murdered. The murderer was never discovered though one of L'Héritier's sons was suspected.

L'Héritier's herbarium collection of over 8,000 species was sold to the Swiss botanist A.-P de Candolle and is now to be found in the great collections of the Conservatoire et Jardin Botanique in Geneva.

Today L'Héritier's name is even erased botanically as the genus Heritiera has been renamed Argyrodendron. However in the Royal Botanic Gardens in Sydney there is a handsome specimen of Black Booyong, a tulip oak from Queensland, still labelled Heritiera actinophylla.

Editors' note:

The What's in a Name? series was started by the late Bernard Fennessy. His collected articles may be found in a folder in the Friends Lounge and also on the Friends website. In memory of Bernard, Fronds continues to publish articles in the style of those he wrote, describing a living plant in the ANBG and the origin of the plant's name. The Editors welcome contributions of articles from readers. As noted in this article, it turned out, contrary to our expectations, that Eucalyptus obliqua is no longer in the ANBG, probably victims of the drought.

Since Bernard's death, the Friends have commemorated his love for and service to the Gardens by establishing an annual Bernard Fennessy Memorial Lecture in early August each year. See What's on at the Gardens at page 17 for details of this year's lecture.

Photos from top left: The two E. obliqua in Westbourne Woods, showing Royal Canberra Golf Club bunker and mower, by Anne Rawson; The illustrationn of E. obliqua by the artist, Joseph Redouté, that accompanies its description by L'Héritier in his work Sertum Anglicum; Bark and leaves of E.obligua by Barbara Podger.





Lollies and nuts in the rainforest







Lolly Bush, Clerodendrum tomentosum, photo by Murray Fagg; Anne Phillips working in the Nursery, on cuttings of rainforest species from Booderee Botanic Gardens, photo by Anne Rawson; Renamed macadamia, Lasjia claudiensis, photographer unknown.

There can be a very long lead time between deciding on a new planting for the Gardens and seeing it in place. Keeping the Rainforest Gully supplied with new plantings is a special challenge as rainforest plant seeds are notoriously slow to germinate. Some, like the Bunya Pine (*Araucaria bidwillii*) need to be kept under germination conditions from one to five years before they shoot.

Recently, Gardens' staff visited Booderee Botanic Gardens at Jervis Bay to collect cuttings to propagate new plantings for the Rainforest Gully. Booderee (formerly known as the Jervis Bay Botanic Gardens) was, until 2000, the frost free annex of the ANBG collection, with much of the collected material from Queensland being grown there. At the time the tropical rainforest material was collected, many of these plants were unable to survive in Canberra. Now, some 40 years on, the Rainforest Gully is sufficiently protected by its mature canopy to provide a

suitable micro-climate for many of these species.

Another new addition to the Rainforest Gully has come from the Yatteyattah Nature Reserve near Milton, the most intact southerly sub-tropical rainforest remnant in Australia. 'Lolly' Bush (*Clerodendrum tomentosum*) gets its very appealing common name from the (actually inedible) berry ripening to black and seated on a fleshy red calyx. Prior to fruiting, it is a mass of white flowers.

Another entrant to the Gully will be *Lasjia claudiensis* (syn. *Macadamia claudiensis*), a rare and endangered Macadamia from far north Queensland which has been successfully germinated in the Nursery and should be sufficiently grown to be planted out in summer. It grows to 25-30 m and has white flowers and very large nuts up to 8 cm wide. Unlike its relative *Macadamia integrifolia*, the commercial macadamia nut, the nuts of this species are not edible.

Westbourne Woods adventure

One freezing day in June, your intrepid reporters (Anne Rawson and Barbara Podger) set off to photograph the only two *Eucalyptus obliqua* that we knew of in Canberra. We picked up our guide and entered the Royal Canberra Golf Club. The grass was very green, the bunkers were very sandy and very deep. We were walking through pines of all sorts but beyond them were reassuringly familiar gum trees. Braving sprinklers, we did find and photograph the *E. obliqua*—see pages 11 and 12. We would like to thank Rick Coate, General Manager of the RCGC, Tony Fearnside, tree adviser to the Golf Club, and our guide Steve Thomas, a Friend of ACT Arboreta, for arranging our visit.

You too can have an adventure by going on a walk through the woods on the second Sunday of every month. Meet at 9.30 am at the entrance to the Golf Club, Bentham Street, Yarralumla. No dogs allowed. The dress code of the Golf Club applies if you wish to have a coffee there. See www.royalcanberra.com.au. For further information contact Friends of ACT Arboreta on 6288 7656 or 6281 1587.

14 August, John Turnbull, Remarkable trees in the woods. 11 September, Paul Dann, Food and fodder from trees. 9 October, Max Bourke, History of Australian arboreta. 13 November, Warwick Wright, Australian trees in the arboretum. 11 December, Kim Wells, Philosophy, trees and spirituality.

Friends Briefs

New Environmental Monitoring Stations

It's an open secret that the Rainforest Gully is the coolest place to be on a hot summer's day in Canberra. Now you can know exactly how much cooler it really is thanks to a new \$49,000 environmental monitoring system funded by the Friends' Public Fund. Associate Professor of Climatology from the Australian National University, Dr Janette Lindesay, ceremoniously switched on the monitors on 9 May.



The monitoring stations have been installed in the Rainforest Gully and the Eucalypt Woodland so that visitors can compare the very different weather and soil conditions of each ecosystem. An interactive kiosk at the Visitors Centre will also allow visitors to explore data from the two sites for the day, week, month, or year.



Dr Lindesay also switched on an extension to the rainforest gully fogging system, funded by the Friends of the Gardens. Shivering our way through the fine mist droplets on this freezing Canberra morning we set our minds to imagining the wonderful cooling effect it would bring in summer.

At the Arboretum



The Friends joined forces with Gardens' staff and some stunning fernery from the Glasshouse in a display marquee at the National Arboretum Festival of the Forests in March.

Ikebana



Ping Block, an Ikebana expert, brought some of her students to the ANBG on Thursday 30 June, to give us an exhibition of the art. We were treated to a demonstration by Ping, with explanations on the art and meaning of Ikebana, and the creation of five beautiful arrangements, featuring Eucalypt bark, timber or flowers.

To further delight the audience, Ping's students were given a turn, creating an arrangement each before holding up a Red Desert backdrop to their creations (see photo), with background Aboriginal music.

We hope Ping will return to the ANBG soon to run some workshops for those of us who would like further introduction to this form.

In Memory of Nancy Dunn

The Friends were sorry to hear of the death on 2 June of Nancy Dunn, aged 97 years Nancy was a country girl from Condobolin in western New South Wales. She trained as a mothercraft nurse and later became Head of the Mothercraft Clinic at the Queen Elizabeth II Hospital in Civic. She was a keen member of the Canberra Croquet Club where she made many friends.

In retirement she joined the Friends of the ANBG and was one of the first guides in the Botanic Gardens, later taking on the task of arranging booked tours for special groups and rostering the necessary guides. Later still she kept an active interest by joining the Growing Friends at their monthly meetings.

To keep fit and independent she could regularly be seen walking from Turner, with her walking frame, to do her shopping in Civic. In 2010 she returned to Condobolin to be near her family. She will be remembered with affection by her friends at the ANBG.

Pauline Wicksteed

Art Blooms



Photo by Helen McHugh

The Friends' Botanic Art Groups once again produced a gorgeous selection of paintings and drawings of native plants for their fourth exhibition and sale in April. The Hon Dr Andrew Leigh, Member for Fraser, opened the exhibition showcasing the diversity of our flora. From the rare, delicately coloured, underground orchid to the bold display of massed Hibbertia blooms there was something for everyone. The artists donated a percentage of sales to the Friends.

AGM on 3 November

At a Special General Meeting in June 2011, the Friends passed a resolution to change the financial year of the Friends of the ANBG to commence on 1 July and go to 30 June the following year. Previously the Friends' financial year started on 1 September.

Since the Friends' AGM must be held within five months of the end of the financial year, the AGM this year will be held on Thursday 3 November.

Membership subscriptions will still become due on 1 November each year.

Autumn Plant Sale



Around 100 people attended the Growing Friends autumn sale. Eight hundred plants were available for sale, all of which were propagated from plants growing in the Gardens, raising nearly \$3,000 for the Friends.

NGA and NLA

Despite an early blast of pre-winter weather, about 40 Friends gathered on 12 April for each of two tours of the Sculpture Gardens of the Australian National Gallery and a viewing of the Ellis Rowan Collection at the National Library. We were fortunate that Barrie Hadlow had offered to take tours of these most interesting cultural icons

We began with Barrie giving us great insight into the plantings and themes of the Sculpture Garden as well as the sculptures themselves. Following this we walked over to the National Library where we were taken 'behind the scenes' into the storage area where the Ellis Rowan collection is housed. Many gasps were heard as the magnificent paintings were revealed to us

one by one by Barrie and staff of the National Library...complete with white gloves! The colour and accuracy of the pictures were incredible.

We would all like to thank Barrie so much for arranging these tours and giving up his time to share his vast plant and historical knowledge.

Trish Munro

Help needed at Open Garden

Ros & Ben Walcott are kindly opening their garden in Red Hill on Sunday 18 September from 10 am to 4 pm with proceeds going to the Friends. This is a very large native garden, being about one hectare, and quite a bit of help is needed, both with gatekeeping/moneytaking/handing out plant lists, and guiding in the garden. Shifts will be two hours maximum and no special skills needed. Help also needed with the tea and scones.

This is a great opportunity to get to know an incredible garden and to promote the ANBG to a different audience as many of the visitors have never been to ANBG.

If you can help contact Andy Rawlinson at: marawlinson@apex.net.au. or phone 6257 4682.

ANBG at Floriade

'Food and Flavours of the Australian Bush' is the theme of the ANBG display garden at Floriade, from Saturday 17 September to Sunday 16 October.

Friends are invited to volunteer as display garden hosts. Shifts will be from 10.00 am until 4.00 pm each day throughout Floriade. No specialist knowledge is required. A briefing session covering responsibilities of the volunteers will be held in the Crosbie Morrison Building at 2.30 pm Tuesday 16 August, following the Guides meeting.

If you are interested in sharing in this activity please email Fran Johnson at fran43mike46@grapevine.net.au, or phone 6288 6865.

Garden Shorts

From Exec Director

We are entering a period with a number of exciting new developments at the ANBG, including the development of the Red Centre Garden. Over the next 18 months you will see the Garden develop from the old nursery site to a stunning new attraction that will open in 2013.

We will also be developing plans for the lighting of the rainforest boardwalk. This project has the potential to provide a range of new experiences for visitors during scheduled night tours.

The expansion of our role in seed conservation through the newly formed Australian Seed Bank Partnership, will be extended with the appointment of a seed researcher to further develop our seed research capabilities.

Interpretation of the living collection will be enhanced through the final stage of the plant labelling project. This will provide for comprehensive labelling of all plants within the ANBG and ensure the collection remains a highly valuable educational and scientific resource.

Judy West

Helping save a nationally endangered plant: *Zieria obcordata*



Zieria obcordata. Photo by G. Robertson from the Recovery Plan

Sixty plants of the small shrub Zieria obcordata propagated by the Gardens have been translocated to a site in Wellington, NSW – one of only two places the plant is known to exist. Paul Carmen and Cathy Hook were joined by landholder George Taylor, the NSW Office of Environment and Heritage and Gardens staff to plant and record this event.

Z. obcordata was first discovered in 1822 and is only known to occur on granite outcrops in the Wellington and Bathurst areas. A small shrub, it grows to about 50 cm high, produces a pungent odour and has leaves similar in shape to a three-leaf clover. The flowers are small, pale pink to white with four tiny petals. The landholders on whose property the plant occurs have been nurturing a small population of the plants but were worried that numbers were plummeting in the drought. The Gardens began propagating the Zieria from cuttings in 2008 and has some plantings along the Main Path.

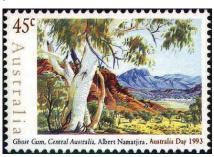
Clearing the way for the Red Centre Garden



Demolition of the potting shed building at the old nursery site marks the official name change to the new Red Centre Garden construction site. The nostalgic among us can rest assured that metal and wood materials from the aged building were stripped and reclaimed for use in other areas of the Gardens. The Landscape design for the Red Centre Garden has been developed and the Nursery is trialling a range of arid plants in different growing conditions. This includes pots, heated benches and different soil mixes for

desert species like Corymbia aparrenja, which is one of the iconic ghost gums of the red centre with its entirely smooth white powdery bark.

Major earthworks associated with drainage works and developing the soil profile will occur in the next six months.



Summer Sounds January 2012

Summer Sounds, Canberra's popular outdoor music event, returns in 2012. During January you will enjoy jazz, rhythm and blues of Annie and the Armadillos, blues and jazz of DeeJay Gospher and other Canberra performers. Supported by the Friends of the Gardens and Peter Blackshaw Real Estate, the Eucalpyt Lawn will be alive with music on Saturday and Sunday evenings with the following performers.

Saturday 7 – DeeJay Gospher Sunday 8 - Key Grip Saturday 14 - As Famous as the Moon Sunday 15 - The Cashews Saturday 21 – The Wedded Bliss Sunday 22 (for Australia Day) - Annie and the Armadillos Saturday 28 - Vertical Sunday 29 - ANU Jazz Trio

Need help with plant ID?

Have you ever wanted to identify a native plant you have seen somewhere but didn't have the resource to do it? The Botanical Resource Centre, next to the Friends lounge, has the tools to help you, and a Facilitator will be present to help you more at the following times: Thursday 1.30-4.00 pm Sunday 9.30 am-12.30 pm



Holiday Bilby Trail

Bilbys were a popular theme for the Gardens' Easter holiday activities. Around 500 people enjoyed the Bilby Trail experience, with the tactile sand box proving to be a favourite amongst the children. Over 200 children, parents, guardians and grandparents participated in the school holiday Story Time program, with many children proudly wearing their bilby masks home.



The Gardens are looking for a small group of 'seedy' volunteers to build the Gardens' grassland seed collection.

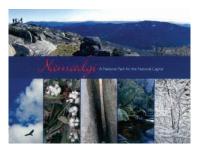
The role of the collectors is to assist during local seed collecting field trips of one-day duration in the ACT and nearby NSW, in a range of different environments, so good to be fit. You will be needed for one day a week between November and February. If you can take photographs, good! Help to build a photo library of ecosystems and habitats.

You will be trained in seed collecting. It would be good to have a group of up to 10 regular 'seedy vols' and interviews will be conducted with interested people.

An information session will be held in the Theatrette on Thursday 25 August from 1.30-2.00 pm, after the regular talk.

For further information and a copy of the duty statement, please contact Sarah. Fethers@ environment.gov.au or on 6250 9462, or Lucy. Sutherland@environment. gov.au or on 6250 9473.

From the Bookshop with TomButt, Shop Manager



Namadgi: a national park for the national capital by Christine Goonrey and Clive Hurlstone Paperback, 89 pages, colour illustrations RRP: \$25.00

Namadgi is a unique and very special place—immeasurably ancient and renewed afresh each spring.

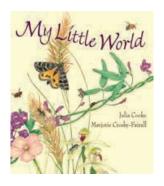
A book like this can only touch on the rich complexity of Namadgi National Park. A drive or a walk through the park gives glimpses of the beauty of our natural environment but there is so much more to see and understand.

Namadgi plays a special role in the social, economic and cultural life of the ACT and its citizens and is a key destination for interstate and overseas visitors.

Publication of this book was made possible with assistance from an ACT Government Environment grant.

This is a beautiful book with many colour illustrations that can only enthuse and encourage more people to visit Namadgi. It covers all areas of interest including walking in the park, the seasons, flora and fauna, Aboriginal and European history, the geology and a short history of the establishment of the Park.

A really great book to have on your coffee table.



My Little World by Julia Cooke illustrated by Marjorie Crosby-Fairall Hardcover – illustrated throughout RRP: \$27.00

It's hard to see the big picture when you're a child, but then it's much easier to see the really small things—insects, lichen, coloured leaves and tiny mushrooms. And it's fun to point out something that others can't see or don't even notice as they hurry past. An artful exploration of the bustling world of nature usually unseen and unobserved at our feet. And local to Canberra—Black Mountain!

Julia, a local research scientist, takes us back to our own childhood when we used to take the time to look at the small things—to 'smell the flowers', and through this book she reminds us of the more important things in life. Things that are not necessarily the big things. It is a wonderful reminder to, on occasion, slow down and look at the world around us.

The artwork is truly wonderful, and all the plants and animals have been reproduced as accurately as possible.

This book will become a classic children's book.



If you can paint one leaf, you can paint the whole world

John Ruskin

The Crosbie Morrison building is a hive of activity on at least one weekend a month with the very popular workshops run by the Canberra Institute of Botanical Art (CIBA). CIBA students are working to capture the glory of plants and to document and perfect their paintings of leaves, flowers and other parts of the plant.

CIBA, established in 2005, has collaborated with the Gardens to hold the weekend workshops. It follows the tradition of every great botanic garden around the world which offers formal courses of study in botanical art. The CIBA mission is to bring to Canberra the very best botanical art tutors and expert artists from around Australia, including Jenny Phillips, Leonie Norton, John Pastoriza-Piñol, Mali Moir, Stephanie Goss, Nilavan Adams, and many more. While CIBA was intended for Canberra

students, it has become so popular that it attracts people from Sydney, Melbourne and from other locations around Australia.

The CIBA workshops are designed to provide students with professional art tuition in the techniques needed to produce fine botanical paintings. Each year a series of seven to eight workshops are organised which consist of a class for beginners that is followed by advanced classes with more specific subjects. The classes are beginning to focus more on Australian native plants. Among the classes on offer this year are Dianne Emery's native Orchids. There are still places available in Anne O'Connor's Vireya Rhododendrons in October, while in November Australia's foremost botanical artist, Jenny Phillips, will be teaching students how to master Callistemons.

See the website: www.bibart.com.au

What's on at the Gardens



August - December

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, and all those who will.

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

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

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

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

AUGUST

Thursday 4 August 12.30 pm 'Travelling Stock Reserves:a legacy for all including conservation' **Presenter: Sue Mathams**

Travelling Stock Reserves (TSRs) have been around since the 1800s and now they may be the only remnant vegetation left often containing threatened flora and fauna and providing linkages for the movement of flora and fauna. Come and learn who manages them and what they are managed for.





Friday 5 August

Part of book week - come dressed as your favourite book

Friday 2 September

Theme: Flower Fairies and Elves

Friday 7 October Friday 4 November Friday 2 December

Saturday 6 to Sunday 7 August 9 am-12 noon **Photographic Workshop Peter Garnick**

To coincide with his exhibition in the Visitor Centre, photographic artist Peter Garnick is conducting a two-day hands-on workshop. Cost: \$125 Bookings: peter@ petergarnick.com.au or 0423 068 833

Thursday 11 August 12.30 pm **Bernard Fennessy Memorial** Lecture: Mv Little World Presenter: Julia Cooke

In My Little World, a children's picture book set on Black Mountain with vivid, realistic illustrations by Marjorie Crosby-Fairall, Julia aims to inspire children to explore. enjoy and conserve the smaller things in nature with a story from her childhood. She will talk about the development of the book, the species featured and conveying conservation messages. Review on opposite page.

Friday 12 August 5.00-6.00 pm **CSIRO** Discovery Photoecology Group Launch, Lecture/workshop

To bring people with an interest in photography and nature together to learn, share knowledge and create. The group will meet throughout the year, and will culminate in an exhibition during National Science Week 2012. Bookings essential on 6246 4646. Membership is free. Contact David Wong on david.wong@canberra.edu.au

SCIENCE WEEK 13-21 August

A Twilight Adventure

Friday 12, Saturday 13 Friday 19, Saturday 20 7.00 pm - 9.00 pm

Unlock the Garden gates and shine a spotlight into a whole new world.

Search for creepy crawlies in the rainforests, spy on nocturnal wildlife in the tree tops and investigate the relationship between animals and their environment.

> Cost: \$8 per person Bookings essential call 6250 9540 limited numbers per night

Children's Trail Friday 12 - Sunday 21

Discover the science stories hidden in the Gardens and learn skills to identify Australian native plants.

Botanical Resource Centre

Monday 15 - Friday 19 1:00-4:30pm

What's that flower? Learn plant identification skills during science week.

Thursday 18 August 12.30 pm 'Costa Rica'

Presenter: Betty Wood

Costa Rica is a tropical paradise in Central America, still with a significant cover of rain forest. The talk will cover animals (mostly birds) and plants at sea level on both the Caribbean and Pacific sides, the Central Valley, and the cloud forest.

Thursday 25 August 12.30 pm 'Friends of Australian Botanic Gardens Organisation' Presenter: Alex Smart

President of the Friends of Botanic Gardens, Alex Smart, is well qualified to talk about the Association, its aims and benefits for sharing knowledge - particularly for new Friends groups setting up throughout Australasia.

Thursday 25 August, 1.30-2 pm 'Seedy vols' information session Lucy Sutherland and Sarah Fethers

See 'Feeling seedy?' on page 15

Friday 26 August – Sunday 2 October Exhibition: The Beauty and Transience of Nature Visitor Centre Gallery

An exhibition of botanical artworks by Sharon Field and Halina Steele, demonstrating the beauty of the life of a plant.

Saturday 27 August 9.30am– 12.30pm Greening Australia planting day

Get your hands dirty and help the transition back to native vegetation in former pine plantations in the Lower Cotter Catchment. Instructions and tools provided on site. Contact lan Rayner on 6253 3035 or irayner@actgreeningaustralia.org.au

SEPTEMBER



Thursday 1 September 12.30 pm 'Wattle Day – An Essential Part of the Australian Narrative' Presenter: Terry Fewtrell

Wattle can tell us much of what we are as Australians. It is a symbol of our identity, our history and our future.

Thursday 1 September to Wednesday 7 September 11am daily Wattle Walks

Celebrate the coming of Spring with a free walk with our friendly Guides. No bookings required. Just come along and discover the delights of our beautiful and fascinating wattles. Meet at the Visitor Centre.

Thursday 8 September 12.30 pm 'The Anthropocene and its Discontents'

Presenter: Bryan Furnass

Since industrialisation, the human population has increased eightfold and degraded the 'airs, waters and places' of the biosphere, justifying the naming of this era the anthropocene.

Thursday 15 September 12.30 pm 'The Rainforest Gully' Presenter: Toby Golson

Horticulturist, Toby Golson, presents an overview of the plantings and operations in the gully over the last 10 years. He also looks at prospects for the future and is prepared to answer lots of guestions.

Sunday 18 September 10am– 4.30pm Walcott Open Garden 10 Wickham Crescent, Red Hill Rosalind and Benjamin Walcott

One hectare native garden with over 700 species, 4,000 individual plants, three ponds connected by a creek. Scones with coffee and tea are available. Native plants for sale. Admission \$6 per adult, children free. Supporting Friends of the ANBG. See 'Help needed' p.14

Thursday 22 September 12.30 pm 'Life at the top: Clement Wragge's Kosciuszko weather observatory' Presenter: Matthew Higgins

For five years, a group of young observers lived at the station (est.1897) year round and have left a fascinating record. They came to study weather and it influenced nearly every aspect of their lives on the summit.

FLORIADE 17 September to 16 October



Tuckertime Walks at ANBG Weekends during Floriade

Guides will be leading Tuckertime Walks between 12.30 and 1.30 each Saturday and Sunday during Floriade. Bring your own lunch and enjoy a guided walk through some of the edible plants in our Gardens. Walks are free but bookings are essential through the Visitor Centre on 6250 9540

Spring Flower Walks 11am and 2pm daily

Join a free walk to take in the delights of the spring blooms in the ANBG. A colourful display to rival any Floriade! No bookings required. Meet at the VC.

ANBG at Floriade

The theme of the ANBG garden at Floriade will be 'Food and Flavours of the Australian Bush'. Come and visit us beside Stage 88. And see 'ANBG at Floriade' on p.14

Sunday 25 September 9.30 am–12.30 pm Greening Australia planting day

See details at Saturday 27 August.

Thursday 29 September 12.30 pm 'Bottle Trees and other Brachychitons for your Garden' Presenter: Attila Kapitany

Marvel at the majestic and spectacular giants of our continent, some grotesque and monstrous, others appearing in need of a hug. Some interesting and unusual aspects of their usefulness in the garden will be explored. Get to know all six Australian bottle tree species, some of them very rare.

Breakfast with the Birds



An excellent opportunity to observe birds in beautiful surrounds followed by a sumptuous breakfast. The early morning is a great time to enjoy the gardens, viewing bird activity, and a peak time for observing spring nesting activity.

If you have a personal group of 10 or more, and the above times or dates do not suit, please contact Louise Muir (6281 6295) as it may be

September:

Saturday 17, Sunday 18 Saturday 24, Sunday 25

October:

Saturday 1, Sunday 2 Saturday 8, Sunday 9

Meet at Visitor Centre at 8.00 am

possible to negotiate an alternative time/date.

Book early as numbers are limited, and spaces fill quickly. Bird walk and breakfast is \$30.00 per person, \$27.00 for Friends. Bookings may be made by phoning the Visitor Centre on 6250 9540. Pre-payment is ESSENTIAL by credit card, cash, cheque to the 'Friends of the ANBG' Enquiries: Louise Muir 6281 6295.

OCTOBER

Free SCHOOL HOLIDAY activities

Waterwatch Saturday 1 & 8, Tuesday 4 & 11

Discover inconspicuous algae, riparian plants and the animals that live there.

Ikebana Workshop Wednesday 5 & 12, 2:00 pm

Discover the ancient art of Ikebana and create your own masterpiece using Australian native plants.

Call VC on 6250 5490 for information

Thursday 6 October 12.30 pm 'Things that go Chomp in the Night' **Presenter: Troy Dare**

Popular Ranger Troy talks about some of the nocturnal visitors to the Gardens. The evening activities have enthralled children visiting the gardens and Troy brings us some of that wonder.

Sunday 9 October 10am & 1pm Orchid walks on Black Mountain

Join Tony Wood to discover some of the spring flowering native terrestrial orchids, and to learn something of this fascinating group of plants. Some off-track walking involved so wear sturdy shoes. Bring a hand lens if you have one. Numbers are limited to 15 for each walk so booking is essential. Telephone 6250 9540 to book and indicate which of the walks you would prefer (the afternoon walk is a repeat of the morning walk). Meet at the car park on Caswell Drive (head south towards Glenlock interchange).

Thursday 13 October 12.30 pm 'St. John's Wort - Encalming or Enraging?'

Presenter: Jean Geue

The wort has proved the most recalcitrant weed in Aranda Snow Gums reserve. It invades high diversity natural vegetation and seeds remain viable for decades. You will see how Friends of Aranda Bushland has tackled it since 1999, how it moved east and how Parkcare has made a difference.

Saturday 15 October 6:00-11:00pm Slow Food Festival **ANBG and Corinbank Festival**

Sample the Corinbank Festival music under the stars. Enjoy a gourmet threecourse slow food banquet prepared by award-winning chefs using local produce. or bring a picnic. To find out more visit www.corinbank.com.

Saturday 15 October 9.30am sharp to 12 noon (or later) **Black Mountain Wildflower Ramble**

Belconnen Way entry, just before Caswell Drive turnoff (look for the balloons). An easy guided walk with Laurie Adams, Isobel Crawford, Peter Ormay and Jean Geue. Bring your friends, especially those who are new to plant identification. BYO morning tea, hat, sunblock, water and stout shoes. Contact Jean on 6251 1601.

17 October – 27 November **Exhibition: Friends School Photographic Competition Visitor Centre Gallery**

See the Gardens from a different perspective through outstanding photography by high school and college students in the annual Friends School Photographic Competition.

Thursday 20 October 12.30 pm 'The Canvons and Wetlands of **Orange County California' Presenter: Doug Laing**

A short distance south of the concrete sprawl of Los Angeles and the make believe world of Disneyland is Orange County. Between the suburbs, down in the canyons and on coastal wetlands, is a surprising wealth of flora and fauna.

Saturday 22 October 8.30am – 2pm **ANBG Parking Lot Australian Native Plants Society Canberra Region Spring Sale**

We expect to have about 10.000 plants of 600 different species or cultivars available at \$4 for small and \$5 for larger pots. Plant lists will be available at: www. nativeplants-canberra.asn.au at least 10 days before the sale.

Thursday 27 October 12.30 pm 'A Journey of over 30 Years with **Australian Native Plants'** Presenter: Ian Anderson

lan's journey has included studying native grasses at university, surveying native plants in the Snowy Mountains, a long and active membership with the ANPS in Canberra and developing several kinds of 'gardens' containing native plants.

NOVEMBER

Thursday 3 November Friends AGM

See Friends briefs page 14. Details willl come in a mailout.

Thursday 3 November 12.30 pm 'A Bush Capital Year; beneath the

Presenter: Ian Fraser

This book, a collaboration between artist and natural history writer, is a response to the remarkable natural world of the ACT region. The talk explains the book's origins and how the author has turned scientific knowledge into stories that non-scientists would want to read for their own sake.

Thursday 10 November 12.30 pm 'Fungi and Humans Over Time' Presenter: Heino Lepp

Heino will give us a glimpse of various non-culinary interactions that have occurred between fungi and humans over a few millennia.

Death in the Gardens

Thursday 10 and Friday 11 **November**



Two evenings of mystery and fun at the ANBG, whether you are a keen murder mystery fan or a novice. Come one and all, solo, duos or trios or a table of family and friends, to play detective and solve the crime! Booking forms will be sent out in October. Put this one in your diary now!

Saturday 12 November 4-7.30 pm gates open 3 pm

Voices in the Forest **National Arboretum Canberra**

The inaugural community concert. Listen to the exquisite voice of Swedish opera singer Anne Sofie von Otter, plus Henry Choo, Louise Page, Christine Wilson and Robyn Archer with P.J. Casey. An exciting program of popular operatic arias, jazz, pop and Broadway numbers. Something for everyone. For more information go to: www.voicesintheforest.com.au and to Canberra Ticketing for tickets.

Thursday 17 November 12.30 pm 'Grafting Western Australian Banksias: Progress so far' **Presenter: Phil Trickett**

Grafting Western Australian banksias to overcome their high susceptibility to phytophthora (root rot) has long been a major issue for horticulturalists and enthusiasts. Phil took up this challenge five years ago, and he discusses his techniques, successes and failures to date.

PLANTS FOR SALE

Saturday 19 November 8.30 to 11.30 am

Propagated, tended and sold by the Growing Friends from material from the Gardens. In the car park behind the Crosbie Morrison Building, See page 8 for details of some of the plants for sale

Thursday 24 November 12.30 pm 'Who's The Smartest - Plants or Animals?'

Presenter: Pat Wright

Pat won't give the answers, just the facts to let you draw your own conclusions!

DECEMBER

1 December – 2 January **International Year of Forests Photographic Exhibition Visitor Centre Gallery**

Photographs by students of Canberra Institute of Technology celebrating the International Year of Forests

Talks for 2011 end in November. A special thanks to our excellent speakers, volunteer helpers and loval supporters

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

15% discount at Yarralumla Nurserv

Hudsons Café - loyalty cards, one for meals, one for tea/coffee

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 Botanic Art Groups, Growing Friends and Photographic Group.

Assist with Gardens research projects

Become a Guide or an Explainer 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.



www.botanicalbookshop.com.au

always welcomes Friends!

A 10% discount is offered:

- on purchases over \$10
- · on production of your membership card
- · to the person whose name is on this card

No discount given for 'Red Spot Specials'.