

Winter 2011

BOTANIC NEWS

FRIENDS of the ROYAL BOTANIC
GARDENS MELBOURNE INC.



TURTLES
IN THE RBG
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ETERNAL ORDER IN NATURE
Exhibition 18 July to 7 August

Eucalyptus pauciflora var. *alpina*

FROM THE PRESIDENT

It gives me great pleasure to announce the first winner of the Helen McLellan Research Grant (HMCLRG), named after a recent generous benefactor of the Friends. The 2011 HMCLRG has been awarded to Dr Anna Syme, Molecular Systematist at the RBG Melbourne, for her project *Unravelling the DNA of Australian grasses: gene duplication and its implications for molecular identification and evolution*, which will run for one year. We wish her all the best for



Austrostipa elegantissima, one of the subjects of Dr Anna Syme's research.

her research, and look forward to hearing about the results.

I have been a Friend for nearly 15 years and greatly enjoy the benefits of my membership including being involved as a volunteer. The Friends of the RBG Melbourne have a strong connection with the Gardens going back nearly thirty years. The Friends value the Gardens as a part of our lives and have supported them in many ways. It is enjoyable to watch the progress of some of the recent projects we have supported such as the Working Wetlands project to capture and use stormwater within the Gardens, and to see the growth in the Rare and Threatened Species bed. It

is exciting to see visitors to the Gardens following the Herbarium Discovery Walk and to read about the projects of our annual Friends' Scholarship winners in *Botanic News*. A full list of all the projects we have supported is available on our website: www.rbgfriendsmelbourne.org. It totals over \$1.7 million!

By being a member of the Friends you help continue this support and we thank you for choosing to be a Friend. Membership can be rewarding by actively attending some of our events, taking botanic art classes or volunteering in one of many ways. You can use the added benefits of discounts at various outlets, such as the Gardens' Shop, or take the opportunity to purchase plants at our members-only nursery on Friday mornings. We run regular quarterly guided tours to the nursery especially suitable for new members. Information about all of these benefits was available in the Autumn newsletter and is listed on the website. If you enjoy your membership why not consider purchasing a gift membership, some art classes or a nursery gift voucher as a unique gift for a friend or family member?

I hope you are receiving and enjoying your monthly *eNews* as well, providing month by month information, reminders and special member *eNews*-only opportunities. Make sure your email details with us are up to date to continue hearing about the latest news and events. Simply email us at friends@rbgmelb.org.au with your current email address, full name, and membership number if possible.



Our Growing Friends group recently held their splendid Autumn Plant Sale, raising over \$20,000 in plant sales and raffle. I hope you managed to get along to it and purchase some of the wonderful plants for sale, all propagated by our Growing Friends Group. I did, and am now wandering around my garden looking for a spot to put them. Some gardeners just never learn!

Next month the long-awaited International Botanical Congress arrives in Melbourne with over 2,500 international visitors expected. The Friends are presenting *The Eternal Order in Nature: The Science of Botanical Illustration* exhibition at Domain House from 18 July to 7 August to coincide with the Congress. It will feature 30 of Australia's leading botanic artists. For more information the exhibition has its own website: www.eternalorderinnature.net. It's not too late to be a sponsor of this very special exhibition.

I am looking forward to seeing many of you in the Gardens and at some of our winter events in the months to come. Enjoy!

Cathy Trinca

Subscriptions

There will be a modest increase in subscriptions from 1 June 2011. Although we have tried to keep our rates as low as possible, we need to cover cost increases. The last increase was over a year ago. We ask members to assist us by promptly renewing their membership on receipt of their first renewal notice so we can avoid postage costs incurred when sending out reminders.

Friends' Membership Prize

Congratulations to Individual Member Lorraine Rusmanis, a Camberwell Friend, who won the Friends' Membership Prize offered for the first quarter of 2011. The prize is a year's free membership.

At the end of each quarter in 2011, all who have paid their membership fee by the due date will be eligible to win this prize. The next draw will be at the end of June.

Well done Lorraine!

FROM THE GARDENS AND HERBARIUM

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Front Cover: Betty Conabere, *Eucalyptus pauciflora* var. *alpina*. Watercolour, c1976 sheet 38 x 28. Courtesy of the State Botanical Collection, Royal Botanic Gardens Melbourne.

Below: Rusted steel cascades for the garden's Gorge Wall being tested in April at Landform's yard in Surrey. Photo: Mark Gregory

Below right: Computer-controlled water jet at Quarella in Melbourne cutting a granite element for the 'Salt' sculpture. Photo: Jay Watson



The Australian Garden at Chelsea 2011

The RBG's team arrived in London in good time to assist with completing our wonderful Australian Garden at the RHS Chelsea Flower Show. It opened on 24 May, and the five days of the Show were an unparalleled opportunity to excite British gardeners about Australian plants – and to motivate them to travel to Melbourne to visit the 'real' Australian Garden! Our presence at Chelsea has been made possible by the Victorian Government, our Major Sponsor, Macquarie Group, and many individual donors.

Jim Fogarty, designer of our garden, arrived in the UK at the end of April to finalise arrangements for building the garden and delivering the plants. Construction began on 2 May – and everything in the 10m x 22m garden had to be in perfect condition by 22 May to be ready for judging. Creating a Chelsea garden is a challenging undertaking, with complicated logistics, tight timeframes, limited space and unpredictable weather! Fortunately we had

Jim's wealth of experience from other international garden shows, and the skills of UK firms Landform Consultants (construction) and Crocus and Kelways (plants) – all of them past gold-medal winners at flower shows – to create our display.

The RBG planting team got to work on 12 May – Chris Russell and Warren Worboys from RBG Cranbourne, and Sandra Hodge and Phil Bowyer-Smyth from RBG Melbourne. I joined them, and we were all assisted by Rodger and Gwen Elliot, Michael Warner from Warner's Nurseries in Melbourne, and Andy Sturgeon, the acclaimed British garden designer. Some 2,500 plants from about 100 species were planted. Many will be new to the UK, and we expect there will be great interest in adding them to the horticultural palettes of home gardeners.

Trees and larger plants being displayed included Queensland Bottle Trees, Snow Gums, Firewheel Trees, Norfolk Island Hibiscus, *Livistona* palms, and *Macrozamia* cycads, while the shrubs and groundcovers included a superb range of

grevilleas, several species of Everlasting Daisy, Kangaroo Paw hybrids, Coastal Rosemary (*Westringia*), Red-Centred Hibiscus (*Alyogyne*), Fragrant Saltbush (*Rhagodia*), banksias, correas and callistemons, and several Flax Lily and Lomandra cultivars. The turf is a new cultivar of *Microlaena stipoides* named 'Griffin' – it was specially grown for our garden for the first time in the UK and came through the cold northern winter well.

A major artistic feature was the 'Salt' sculpture by Edwina Kearney and Mark Stoner. The sculpture flowed across the red sand in the foreground of the garden and was inspired by the salty crusts left after inland rains have dried away. The artwork's white granite elements were cut by a computer-controlled water jet in Melbourne and then shipped to London.

Chelsea Flower Shows attract media attention from around the world, including Australia. Our purpose in participating in the 2011 Show and benefiting from this global coverage was to promote both the Australian Garden at RBG Cranbourne and tourism to Melbourne ahead of the opening of Stage 2 next year. TV and print media coverage of our Chelsea garden had already been extensive and peaked in the week of the Show. We established a Chelsea update site (www.theaustraliangarden.wordpress.com) with links to related sites and also blog, Twitter and Facebook sites, so there were many ways to keep in touch with news, photos, video clips and other information about the garden.



FROM THE GARDENS AND HERBARIUM

The idea of taking the Australian Garden to Chelsea developed in September 2009, and since then the planning, logistics, fundraising, and plant management – and now the creation of the garden itself – have all been memorable experiences. The Chelsea Flower Show is an incomparable stage on which to celebrate Australia's plantlife and the soon-to-be 18 hectares of landscapes and gardens at Cranbourne. We have been able to undertake this project only through the generous support of the Victorian Government and Macquarie Group, and with the assistance of individual donors and the other sponsors and supporters Maxwell & Williams, Tourism Victoria, R M Williams, and the City of Casey.

Eighteenth International Botanical Congress

The RBG is deeply involved in supporting the International Botanical Congress taking place in Melbourne from 23-30 July this year. Held every six years, and for only the second time in Australia, we are expecting up to 2,500 botanists from around the world to attend the meeting, which will be held at the Melbourne Exhibition & Convention Centre. Prof David Cantrill is a member of the Organising Committee, and RBG staff are leading several symposia and will be presenting 12 spoken and poster papers at the Congress. The National Herbarium of Victoria will be a drawcard for some of the attendees – already 60 have registered to spend time at the Herbarium examining our

scientifically and historically important collections, especially the large number of Type specimens. We will be setting up special 'viewing stations' in Mueller Hall for botanists to work on the material. Special tours are being organised of the Australian Garden at RBG Cranbourne, and an RBG botanist is leading one of the Congress field trips to the Grampians and Southwest Victoria.

Helen McLellan Research Grant

I am most grateful for the Friends' award of the inaugural Helen McLellan Research Grant to Dr Anna Syme in the RBG's Plant Sciences and Biodiversity Division. This annual award to an RBG researcher will extend the range and type of projects which we can undertake and assist in maintaining our long history of increasing knowledge about Australian plants. Dr Syme's study will continue the RBG's development of DNA techniques to identify native and exotic grasses, including noxious introduced grass weeds.

Philip Moors
Director and Chief Executive



Photo: Samantha Stapleton

Image above: All in the name of science! Wading into the Ornamental Lake with a Fyke net to collect turtles. (See article on facing page)

Below left: Dr Anna Syme, winner of the inaugural Helen McLellan Research Grant.

Below right: Some of the subjects of Anna's research, in the garden bed on Prince's Lawn, featuring *Austrostipa* species.



Photo: Anna Syme

TURTLE WATCHING IN THE GARDENS



Common Long-necked Turtle (Chelodina longicollis), long-term resident of the RBG. Photo by John Roe

In early February, after heavy summer rains and the opening of a new stormwater diversion pipe from Domain Road, the RBG's lakes were overflowing. Wildlife was flourishing and the turtles appeared to be having a fine time. One day I saw three husky specimens, backsides tilted down, sculling in place and staring intently at people on the shore. Oddly bold behaviour, I thought, for the reclusive Common Long-necked Turtle (*Chelodina longicollis*) that inhabits the RBG's lakes. Long-necks are usually glimpsed drifting in dark waters near the bottom of the lake.

I've since learned that we actually have two species of

turtles in the RBG Melbourne. A newcomer, the Murray River Turtle (*Emydura macquarii*), was a surprise find in November 2010 when students from the Water Studies Centre at Monash conducted a turtle survey. The survey was coordinated by the RBG's Peter Symes, Curator of Environmental Horticulture.

Peter reports that the Monash team captured turtles using long tunnel-like Fyke nets in the Ornamental and Central Lakes. The nets directed the turtles to a containment area designed to prevent them from drowning. Before being released, the turtles were weighed, measured and provided with a microchip that



Laying a Fyke net to capture the turtles. Photo: Samantha Stapleton

will assist future studies. In all, 32 turtles were trapped: 16 Murray River Turtles and 16 Common Long-necked Turtles.

Both turtles are native to South-eastern Australia and belong to the Chelidae family, a group of freshwater turtles. They look similar with their dark, relatively flat shells and powerful claws. Both prefer slow-moving or stagnant waters to rapidly flowing rivers. They are 'side-necked' turtles that fold their heads sideways under their shell rather than retracting them straight back.

The most obvious difference between them is the very long, thin neck of the Long-necked Turtle that looks dispro-

portionate to its 25cm shell. Indeed, this turtle is sometimes called the Snake-necked Turtle. The Murray River Turtle, on the other hand, is a larger, sturdier-looking creature with a shell measuring over 30 cm. It can weigh up to 4 kilos and has a cream stripe extending from the corner of its mouth down along its neck and distinctive amber irises in its eyes.

Grand mystery: The Murray River Turtle is out of its natural range (the Murray-Darling Basin). How and when did it arrive at the RBG?

Susan Chandler

Below: Murray River Turtles (Emydura macquarii), newcomers. Photo by Peripetus



EVENTS



Winter Insiders' Walk

TO THE TEMPLE AND THE LYCH GATE

Wednesday 22 June at 10 am
Meet at Gate Lodge
COST: \$15 MEMBERS ONLY
RSVP by Friday 17 June on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org
The walk will start at Gate Lodge where a delicious morning tea will be served.
Book early as numbers are limited.

In getting to know our beautiful Royal Botanic Gardens this walk will cover the north-western area and curve around the boundary of Government House.

We will pass the Perennial Border to take in the view from Hopetoun Lawn, look at the plants in the Government House Bed and walk around the Temple of the Winds. We will learn of the royal history of the magnificent trees on Hopetoun Lawn and the history of the Temple.

On the journey to the Lych Gate the path winds through the Huntingfield Lawn. How many of us visit this place? This lawn is not visited as often as other turfed zones of the Gardens yet it bears very graceful Eucalypts and other interesting trees.

From the Lych Gate we will re-enter the Gardens and travel via the Plant Craft Cottage to the Rose Pavilion, observing the succulent plants and gathering more of the history of this area.



Winter Guided Visit

TO THE GROWING FRIENDS' NURSERY

Friday 24 June at 10:30 am
Meet at Gate Lodge (opposite Shrine)
COST: \$5 MEMBERS ONLY
RSVP by Wednesday 22 June on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org

Continuing cool weather this autumn has been a bonus for the Gardens, and especially for Melbourne's magnificent trees. Winter is the perfect time to do your garden maintenance, or repot and fill in a bare spot with some of the interesting plants on offer at the Friends' Nursery.

If you missed our Autumn Sale, this is the opportunity to get those extra plants for the garden. There are always several helpful members of the Growing

Friends on hand to give advice.

Morning tea at Gate Lodge is always a highlight and this gives new and long-term members the opportunity to meet with new Friends before being guided through the Gardens to the plant nursery.

It's a good idea to bring some strong carry bags for your purchases.



The Australian Garden

AT THE 2011 CHELSEA GARDEN SHOW

Date: Saturday 25 June at 2.45 for 3 pm
Ross Hall, Melbourne Girls Grammar School,
88 Anderson Street, South Yarra
COST: \$30
RSVP by Monday 20 June on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org

Come and experience all of the intriguing and exciting aspects of this major event with a fascinating presentation by Jim Fogarty and the RBG Crew who were involved at Chelsea.

In May this year the Royal Botanic Gardens Melbourne entered the 2011 RHS Chelsea Flower Show for the first time in its history. The garden told the story of the metaphorical journey of water through Australia and was designed by Jim Fogarty. It featured a combination of wall sculptures, water features,

pebbled paths and rare native plants, some of which had never been seen at Chelsea before.

The Australian Garden had a prime position. It was the first Australian entry in the Show's history to be featured in the Main Avenue. It shared this prestigious location with seven other gardens.

This presentation is jointly organised by the Friends of the Royal Botanic Gardens Melbourne and Cranbourne.



Winter Feast of Film

Tuesday 5 July at 9:30 am
 The Lodge, Melbourne Grammar School
 355 St Kilda Road, Melbourne
 Note: Free underground parking adjacent to The Lodge.
 First film commences at 9.30 sharp.
 Morning tea at interval.
 COST: \$15 \$25 Non-members
 RSVP by Thursday 30 June on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org
 Book early as numbers are limited.

In the lovely surrounds of Melbourne Grammar, we are once again able to enjoy two one-hour films featuring British gardens of note.

The first, 'Alnwick', the brainchild of the Duchess of Northumberland, is considered "the most imaginative modern public garden ever created anywhere....". Combining complex and exciting plantings with amazing garden design, there is something for everyone in this unique garden.

A tempting morning tea will be served at the conclusion of the first film and will be followed by the final in the series on gardens in the British Open Gardens Scheme. Included are the gardens of Crowe Hall, Avon; Mwyndy House, Glamorgan; Chesters Walled Garden, Northumberland; and other gardens in Cumbria, Norfolk, Dorset and Surrey.

Free underground parking can be accessed from St. Kilda Road beside The Lodge.



Winter Talking Plants

CLEMATIS: SPECTACULAR FLOWERING CLIMBING PLANTS

Friday 15 July at 10 am
 Domain House, Dallas Brooks Drive
 COST: \$10 \$15 Non-members
 RSVP by Tuesday 12 July on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org
 Refreshments will be served on arrival.

Clematis is one of the most prolific flowering climbers. They climb by twisting their leaf stalk tendrils about a support and are ideal for training on verandah posts, arbours and trellises.

The flowers vary in colour, size and form but are usually showy bell-shaped or flattish flowers with four to eight petals which are followed by masses of fluffy seed heads, often lasting well into winter.

They are very versatile and can be grown in harmony with

almost any plant including roses, small to medium trees and other climbers. They are also suitable to be grown in pots and on balconies.

There are three main groups of Clematis. All groups will be discussed by a knowledgeable person who will show a range of different clematis and discuss the cultural secrets to success for growing these glorious plants to perfection. There will be plenty of opportunities to have your questions answered.



The Eternal Order in Nature: The Science of Botanical Illustration

GUIDED TOUR OF THE EXHIBITION

Thursday 21 July at 10 am
 Meet at Gate Lodge (opposite Shrine)
 COST: \$20 MEMBERS ONLY
 RSVP by Friday 15 July on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org
 Book early as numbers are limited.

Botanical illustrators and curators of the exhibition, Amanda Ahmed and Mali Moir, will lead a guided tour of the *Eternal Order in Nature* exhibition. This comprehensive tour will provide an insight into this important survey of historical botanical illustration in Australia. Amanda and Mali will discuss a number of the artists' and botanists' works in the exhibition, highlighting specific areas of research and/or specialisation. See microscopic drawings of mosses located in the Antarctic, and

detailed larger watercolours of plants such as a rare Macadamia only recently discovered in the 1980s. The viewer will gain an insight into botanical illustration and its important role in continually recording Australian Flora.

We will meet first at Gate Lodge for morning tea, after which we will walk over to the Domain House Gallery to view this exciting exhibition.

Image: Pimelia ligustrina 1968 by Betty Conabere.



Old Landscapes Reveal New Perspectives

PROFESSOR STEPHEN HOPPER, FLS, DIRECTOR, KEW GARDENS

Saturday 23 July at 2.45 for 3 pm.
Ross Hall, Melbourne Girls Grammar School,
88 Anderson Street, South Yarra
COST: \$30
RSVP by Monday 18 July on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org

We are extremely fortunate to have Professor Stephen Hopper, FLS, the fourteenth Director of the Royal Botanic Gardens, Kew (and an Australian) to present a lecture for the Friends of both the Melbourne and Cranbourne Gardens while he is in Melbourne for the International Botanical Congress in July.

Recently, Stephen has been exploring a new perspective termed 'OCBIL theory', as to how biodiversity has evolved and might be conserved on the world's oldest climatically-

buffered infertile landscapes, (OCBIL).

Of necessity, much of what we do in conservation programs, such as protected area management, borrows heavily from theory and practice developed elsewhere, Stephen poses the question 'Is this appropriate?'

Make sure you do not miss this fascinating lecture which is an event jointly organised by the Friends of both RBG Melbourne and RBG Cranbourne.



The Eternal Order in Nature: The Science of Botanical Illustration

OPENING RECEPTION

Monday 25 July 6 – 8 pm
Domain House Gallery
Dallas Brooks Drive, South Yarra
(Opposite the Herbarium)
COST: \$25
RSVP by Friday 15 July on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org
Book early as numbers are limited.

The Friends are proud to present this exhibition of Australian botanical illustrators past and present to coincide with the XVIII International Botanical Congress.

Over thirty of Australia's leading botanical illustrators have been invited to exhibit a body of work which focuses on a particular project or study of a plant species.

The exhibition aims to generate awareness of botanical illustration as a means of

documenting and recording information for scientific research and to showcase our talents to both the international scientific community attending the Congress and the general public.

Image: Eucalyptus pauciflora var alpina c1976 by Betty Conabere.



Fit Friends Ramble

SOUTH MELBOURNE

Tuesday 9 August at 10.30 am
corner Park and Clarendon Streets
(Stop 24 for Tram 1 in Swanston St or Stop 129 for Tram 112 in Collins Street.)
COST: \$20 Non-members \$30
The cost includes the fee for the tour of the Tapestry Workshop and a donation for the concert.
RSVP by Tuesday 2 August on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org
Book early as numbers are limited.

South Melbourne originated on the elevated area first known as Emerald Hill two kilometres south of the city. As our last ramble there was so popular we are repeating the cultural, historical and musical experience. We will explore the area around Clarendon and Park Streets where trams have been running since 1890, and look at cottages and interesting shopfronts.

After a visit to the See Yup Temple we will have coffee at our own expense at one of the

popular coffee houses nearby. Then we will have a tour of the Australian Tapestry Workshop learning how their artistic masterpieces are created. At 1 pm we will be treated to a concert by the musicians of the Australian National Academy of Music, playing Beethoven's Sonata for Violin and Piano Op 47.

The concert should end at about 2 pm.

This ramble is ideal for winter weather, as much of it is under cover.

EVENTS



Talking About Your Plants

WINTER WONDERS

Friday 12 August at 10 am
Domain House, Dallas Brooks Drive
COST: \$10 \$15 Non-members
RSVP by Tuesday 9 August on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org
Morning tea will be served during the morning.

This morning will be an informal gathering of Friends with a common interest in plants and gardening. All those attending are invited to bring along a piece of a favourite Winter Wonder to show and share their knowledge of the specimen. Please feel free to bring more than one example.

Following our discussion there will be an opportunity to visit the Growing Friends' Nursery which stocks many tempting winter wonders for

sale. The Growing Friends are always very happy to help with advice and share their knowledge of the plants they cultivate.



The Botany of the Burke and Wills Expedition

DR LINDEN GILLBANK

Wednesday 17 August at 6 pm for 6.30 pm
Mueller Hall, National Herbarium
COST: \$15 \$25 Non-members
RSVP by Friday 12 August on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org
Wine and savouries will be served before the talk.

News of the tragic fate of Burke and Wills reached Melbourne 150 years ago and effectively silenced the expedition's scientific successes. Fortunately for Australian botany, the expedition's plant collector, Hermann Beckler, did not accompany Burke and Wills beyond Menindee. Despite incredibly difficult circumstances, Beckler managed to collect many hundreds of plant specimens between Melbourne and the southern edge of Queensland in 1860-61. The Colony of Victoria's tireless government

botanist, Dr Ferdinand Mueller, added Beckler's specimens to the government herbarium and used some to establish new species. They were crucial for Mueller's documentation of Australia's flora and still reside in the National Herbarium of Victoria. The important botanical legacy of the ill-fated Burke and Wills expedition deserves to be more widely appreciated.

Image reproduced with permission from the State Botanical Collection, RBG Melbourne.



Scholarship Winners Talk

FREE ILLUSTRATED LUNCHTIME TALK

Thursday 25 August at 1 pm
Mueller Hall, National Herbarium
COST: Free

You are welcome to bring your lunch as there will be no refreshments provided on this occasion.
RSVP by Tuesday 23 August on enclosed booking form or download one from the Events page on our website: www.rbgfriendsmelbourne.org

To celebrate the 25th Anniversary of the Friends in 2007, a scholarship scheme was launched. The annual scholarship of \$10,000 is awarded to a member or members of the RBG staff of both Melbourne and Cranbourne to aid in professional development and skills acquisition.

We welcome two of the 2009 winners, David Robbins and Cali Salzmann, who will share with us their stories of discovery and learning. This is a wonderful insight into the knowledge and

innovative development that enriches the RBG and makes it one of the premier botanical gardens of the world.

Learn about the revised quarantine rules, plant naming, cultivar registration and much more that now, in application, benefit the RBG workplace.

A fascinating talk not to be missed.

SUPPORT THE GARDENS

GROWING FRIENDS

Friends' Support for the RBG Melbourne and the National Herbarium of Victoria

CONSIDER OUR TRUST FUND FOR YOUR DONATIONS

For twenty-nine years, the Friends have generated money to fund projects and programs in the RBG Melbourne and the National Herbarium of Victoria. Funds come from two sources: the Friends' operating surpluses achieved from activities conducted during the year, and the Friends of the Royal Botanic Gardens, Melbourne, Trust Fund.

The Trust Fund is an income tax-exempt charitable entity, and donations to the Fund are tax-deductible. Donations to the Friends and a few bequests were the principal inflow into the Fund up until 2007. That year the Friends received a very generous bequest from the estate of the late Helen McLellan which enabled funds to be invested to generate income which has helped to increase the grant-making capacity of the Friends. Information on the Friends' finances, including the Trust Fund, is contained in the Friends' Annual Report distributed annually to all members.

Since 1985, grants totalling more than \$1.7 million have been made to the RBG. The Friends have worked hard to provide this financial support and the money raised has helped support the Gardens and Herbarium in an effective and thoughtful way.

Some of the major projects supported by the Friends include:

- De-silting of Central Lake (2001) \$120,000

Water conservation projects:

- Theatre Lawn Irrigation (2002) \$47,000
- Ian Potter Foundation Children's Garden Irrigation (2004-5) \$50,000
- Fern Gully Irrigation (2008) \$52,000
- Guilfoyle's Volcano (2009) \$70,000
- Working Wetlands (2010 – continuing) \$210,000

Grants for Infrastructure:

- Seed House in Gardens' Nursery (1995) \$56,000
- Nursery Facility in Gardens (2001) \$200,000
- Renovation of Gate Lodge (1998) \$85,000

Many smaller grants which cover a wide range of purposes:

- Purchase of artwork for the State Botanical Collection (2010) \$5,000
- Staff Scholarship Scheme \$10,000 pa
- Helen McLellan Research Grant up to \$20,000 pa
- Staff travel and attendance at conferences; development purposes – numerous grants.

The Friends' main activities include plant sales, botanical illustration classes and workshops, biennial exhibitions and sale of botanic art produced by members and art class students, events and functions including talks and excursions, raffles and the sale of goods such as greeting cards and calendars. All these activities except for the art classes are organised and run by volunteers drawn from the Friends' membership of 2,300.

Maurice Castro, Treasurer

Nursery Open Days in Winter

All Fridays in June, July and
August
between 9 am and 1 pm

NEW PLANTS

The Growing Friends have for some time been increasing the diversity of the plants they are propagating. The result of these efforts was that the list of plants in the Autumn Sale catalogue, and therefore the variety of plants on the ground, was larger than usual. So if you didn't see the new species and/or cultivars of correas, eremophilas, salvias and penstemons, to name just a few, at the sale call into the Nursery on a Friday morning to have a look at them.

AUTUMN SALE

As all gardeners know, the weather in the period leading up to the Autumn Sale was close to perfect for growing plants – good rain and warm but not too hot. So the Growing Friends went to the sale with a large supply of excellent quality plants. It was a great success, and the rain held off until after the sale closed

on Sunday afternoon. The raffle also made a significant contribution to the sale and the lucky winners were:-

1. Alice Choate who won the pot containing a collection of Succulents, donated by the Growing Friends.

2. Irwin Newman who won the book *Rural Australian Gardens* donated by Reader's Feast Bookstore.

3. Susan Sims-Lucas who won the Felco secateurs donated by Bunnings.

We are very grateful to the donors whose offerings generated great interest over the weekend.

DAHLIA IMPERIALIS

Dahlia imperialis, the Tree Dahlia, is a species dahlia and is native to Mexico. It is a tuberous perennial which produces tall bamboo-like flower stalks which can be up to four metres high. The flowers, which appear in winter, are commonly lavender but there are also white and purple cultivars. Since it is fairly tough it will grow in most well drained soils, but the flower stalks need staking and protection from strong winds.

Michael Hare, Convener



Photo: Michael Hare

TESTING MISTING SYSTEMS IN THE GARDENS

Microclimate Monitoring AND THE IMPROVEMENT OF WATER MANAGEMENT IN RBG MELBOURNE

Temperature and relative humidity are amongst the most important environmental factors for plants. (Relative humidity is the measure of water vapour that is held in the air at a specific temperature). During summer in Melbourne, the combination of high temperatures and low relative humidity can increase water loss beyond what some plants can cope with. This results in leaf scorch and the death of some plants under extreme conditions. Misting systems have been the horticulturist's choice to increase relative humidity and reduce temperatures, but there seems to be little actual measurement of the success of these systems.

In 2008, the Friends of RBG Melbourne funded the installation of a wet-down (misting) irrigation system in the Fern Gully. This was designed to minimise water use and improve plant health.

The threat of a warming climate has focussed attention on the effectiveness of cooling systems where they

are installed. Just how much difference do they make to the microclimates?

Since October 2010, horticultural staff have been monitoring and recording temperature and relative humidity at selected sites for the Australian Forest Walk, Fern Gully, and Southern China Collection. The Australian Forest Walk and Fern Gully have wet-down irrigation systems in operation, whereas the Southern China Collection has none.

Temperature and relative humidity sensor loggers have been mounted within a radiation shield (which protects measurement from direct sun) to standardise measurements.

For example, 31 December was one of our hottest days in 2010. The temperature was 13° C at 7am and rose to 41° C at 4 pm. The relative humidity dropped from 96 to about 13 per cent for the same time period. This extreme temperature and low relative humidity had the potential to severely stress many plants in the Gardens. Both the Australian Forest Walk and Southern Chinese Collection had maximum temperatures

ranging from 39 - 40° C, with relative humidity falling to 14 - 19 per cent. However, in the Fern Gully, the wetting-down irrigation system helped keep the temperature down to 30° C and relative humidity up to 40 per cent. We concluded that wetting-down irrigation can significantly improve the living environment for plants in the Fern Gully.

It was striking that while the Australian Forest Walk has a wet-down irrigation system like the Fern Gully, it made no significant improvements to temperature or relative humidity levels in the Walk.

Wetting-down irrigation systems are most effective in what is already a protected microclimate (with minimal wind-mixing) such as the

Fern Gully when compared to more exposed sites such as the Australian Forest Walk. The greatest benefits of the wet-down system appear to be in the period of peak temperature and lowest relative humidity.

This study allowed us to recommend improvements to the frequency of the misting irrigation without increasing water use while still obtaining a better microclimate for plant health. The project provided valuable learning in how we can enhance the management of existing plant collections and in-site selection of other collections for our challenging future climate.

*Steven Liu and Peter Symes,
Environmental Horticulture,
RBG Melbourne.*



*Above: Temperature logger in the Australian Forest Walk Garden.
Below: Sunburst and misting in the Fern Gully.
Photos: Peter Symes.*



ILLUSTRATORS

Botanical Drawing with Elizabeth Cooper

Sunday 24 July 2011

10 am to 4 pm

Whirling Room Studio,

Observatory Gate

Cost: \$157 Friends: \$110

Elizabeth Cooper, whose work will be appearing in *The Eternal Order in Nature* exhibition, will be conducting this one-day workshop for experienced students in botanical drawing. Elizabeth will be talking about the importance of drawing in keeping us in touch with the plant world, the appeal and flexibility of the graphite medium and the way she uses it to convey the essential character of the plant.

She will demonstrate the finer points of her graphite technique, particularly in building up form and tone, and in capturing the exquisite detail of the botanical subject. A materials list will be supplied.

Below: Elizabeth's pencil drawing of Stenocarpus davallioides, the Fernleaf Oak.



Illustrators Mary Gregory, Meg Heriot and Lyn Gras with their Eucalypt paintings, and Jenny Dempster with her painting of bird feathers.

Classes

Term 3 will start in the week beginning Saturday 23 July. Classes will be held on Tuesday and Wednesday evenings and in the daytime on Mondays, Wednesdays and Saturdays (two sessions each day - 2.5hr), Thursdays (one 2.5hr session) and Fridays (one 3hr session).

2.5hr classes: \$290 (incl GST)

Friends: \$240 (incl GST)

3hr classes: \$335 (incl GST)

Friends: \$285 (incl GST)

We recommend that students without prior experience in botanical illustration complete a Beginners' Workshop before entering Term classes. For further information 9650 6398.

Whirlybirds

The Whirlybirds is a group of botanical artists who meet each Tuesday or Thursday in the Whirling Room Studio.

If you are a botanical artist and member of the Friends and are interested in joining us please contact Sandra Sanger on 9598 9532.

Eucalypts of the Royal Botanic Gardens Melbourne

The Royal Botanic Gardens Melbourne currently has 168 eucalypts (including corymbias and angophoras) listed on its plant census. The Illustrators' Group, members of Friends of the Royal Botanic Gardens, have embarked on a project to document as many of these trees as possible, as they are well represented in the Gardens and very much part of its history.

The Eucalypt Project will provide an opportunity for illustrators to develop their skills in documenting plants in a traditional way, using the techniques of true taxonomic study. The work will also provide a permanent record of the work of illustrators who exhibit in the Friends' *The Art of Botanical Illustration* biennial exhibition.

Participation in the project is open to all artist members of the Friends, regardless of their artistic ability. At present upward of 50 artists have expressed interest in the project. A set of uniform guidelines stipulating the specific details

of each eucalypt such as leaves and junction to stem, buds, fruits, habitat, inflorescence etc. must be followed by all artists wishing to add a painting to the collection.

An archival image of each of the eucalypts from the Royal Botanic Gardens will be gifted to the State Botanical Collection, housed in the National Herbarium Library. This Florilegium will create a permanent asset of considerable value.

NATURAL HISTORY EXHIBITS

Many botanic artists are showing a strong interest in natural history specimens. As a result of the renewed enthusiasm by both teachers and students to exhibit in this area, Dianne Emery has suggested combining natural history subjects with the Eucalypts.

The Eucalypt Project will culminate in a public exhibition of works at Domain House on Saturday 1 October 2011. The Exhibition titled *Eucalypts and Nature's Small Wonders* will run until Sunday 16 October.

Sandra Sanger and Pam McDiarmid

ILLUSTRATORS

Botanical Illustrators Autumn Meeting

BECKLER'S BOTANICAL BOUNTY

Botanical artist and teacher of Botanical Illustration, Mali Moir, described a field trip she led to Menindee in October 2010 to collect and paint some of the same plants Hermann Beckler collected on the Burke and Wills expedition 150 years ago. The talk was enhanced by many photos taken by Wal Hansen, and presented as a continuous loop on Wal's giant screen. Ten artists and one photographer spent five days in Menindee. The art room at the Menindee Central School was the centre of operations, and accommodation was in and adjacent to the school's new venture in Hospitality Studies, two restored railway carriages.

The aim of the BBB project is to collect and illustrate as many as possible of the 120 taxa collected in the area by Beckler, and held in the RBG Herbarium. This pilot phase of the project benefited from input from Herbarium staff, especially Pina Milne. One of the challenges for the leader and some of the artists was to come to grips with the realities of field work, and the requirements of collecting to the standard required by the Herbarium. Because the site was in NSW, it was necessary to collect an additional specimen for that state's herbarium. It is believed that the value of both specimens and paintings is enhanced if they are linked, hence a third specimen was required. In the event, 15 of the 120 taxa were collected and ten



Photo: Wal Hansen

paintings have been completed. One of the paintings (by Mali) will be a plate in the forthcoming Royal Society of Victoria publication *Burke & Wills: The Scientific Legacy of the Victorian Exploring Expedition*. The expeditioners were treated to a talk on plants important to the indigenous people, and a *Welcome to Country*, each by an elder. The artroom was also opened to interested Menindee people for a 'show and tell'.

For many of the artists, searching for specimens, describing the site and, especially, making a preliminary identification, provided a steep learning curve, and the participation of those with field experience, especially Rod Orr and Diane Davies, botanist/artists who had come equipped with many reference books as well as microscopes etc, was invaluable. One of the collection sites was incredibly rich with numerous species, often in dense drifts and it was hard for some participants to return to the studio because of their fascination with the flora. Some became particularly entranced by really tiny plants, best portrayed at greater than life size.

The Whirling Room audience had an opportunity to see some of the paintings, bundles of specimens, voucher booklets and various other items relevant to the trip. Those present appreciated the fact that the kind of activity described places botanical illustration in a larger, more meaningful context than simply flower painting. We thanked Mali and Wal for an interesting and inspiring presentation, and the conversation continued for quite a while over morning tea.

A return trip, which we hope will include a structured orientation to field work for artists, is planned for October 2011. For full details, see box labelled 'Project Workshop' at top right.

Roslyn Glow



Photo: Amy Wells

Project Workshop

EXPRESSIONS OF INTEREST

'Beckler's Botanical Bounty' invites interested artists to join the project through a workshop to be held in Menindee from 3 to 7 October 2011 led by Friends' tutor in Botanical Illustration, Mali Moir. In addition, there is an opportunity for honorary botanists and field naturalists to contribute. To receive further information, including the cost of the workshop, please register your interest by 31 August. Contact the Friends' office on 9650 6398 or email friends@frbgmelb.org.au

For further information, becklersbotanical.blogspot.com

Botanical Illustrators

QUARTERLY MEETING

Tuesday 14 June 2011 at 10 for 10.30 am in the Whirling Room

Cost: \$5.50. Pay on the day

The Great Melbourne Telescope and Its Building; Past, Present and Future

Jim Pollock, Vice-President of the Astronomical Society of Victoria and Leader, GMT Restoration Team will tell us about the history of the GMT, how and why it is being restored and the possible fate of the building when the restoration is complete.

INVESTIGATING TREE VIOLETS



Typical Western Plains scrublands in SW Victoria

I developed an interest in Tree Violets (*Hymenanthera* as they were known then, *Melicytus* now) in the early 1990s while roaming the western suburbs of Melbourne trying to familiarise myself with the flora of the Volcanic Plains that, as I was studying it, was being swept aside to make way for new suburbs. The dominant plant community in this part of Melbourne is (or was) grassland dominated by Kangaroo Grass (*Themeda triandra*). Within this grassland, shrubby species are few and among the most conspicuous are the Tree Violets. During my plains wandering I noticed two clearly distinct forms of Tree Violet, but at the time there was only one formally recognized species for mainland Australia.

Tree violets are members of the violet family, *Violaceae*, which in Australia is represented by four genera: *Hymnanthus*, *Melicytus*, *Rinorea* and *Viola*.

In the book *Flora of Victoria*, a discussion of the variation in Tree Violet growth drew notice to the different forms encountered in Victoria, subsequently resulting in the recognition of three forms of the plant – typical *M. dentatus*,

an erect shrub to about three metres high with fine prickles along its branches, and two apparently unnamed forms, both squat shrubs with rigid spreading branches and thick spines, – the ‘Volcanic Plains form’ – and a usually smaller plant that seems restricted to subalpine areas – the ‘Snowfields form’.

In an attempt to research the distinctive characteristics, I borrowed preserved specimens from other Australian herbaria. The variation apparent in specimens from other states suggested that field research was needed to clarify the morphological and distributional patterns, particularly in the ‘problem areas’ – western Victoria, Tasmania, and South Australia.

Close examination of the herbarium material revealed a previously-overlooked characteristic, floral sexuality, that could easily separate two entities. What we know as ‘typical’ *M. dentatus* is dioecious (i.e. plants are either male or female), while the two ‘unnamed forms’ have normal bisexual flowers. Further research revealed that the ‘unnamed forms’ were exceedingly close (if not identical) to a plant named



Flowering tree violet - *Melicytus angustifolia*

in 1824 as *Hymenanthera* (now *Melicytus*) *angustifolius*, based on plants collected in northern Tasmania. The tasks then became to prove whether the two forms were (a) really different from one another, or (b) if either or both of them were the same as *Melicytus angustifolius*.

In September 2010, I spent four days surveying populations in South Australia which are quite isolated, occurring at Naracoorte and the Lofty and Flinders Ranges. These populations were critical in this study because they appeared to be very similar to the Tasmanian Type specimen (the specimen that becomes the ‘model’ for the species) of *Melicytus angustifolius*. While the floral sex is readily established in herbarium specimens, in the field one of the most important features is the architecture of the plant – the branching pattern and rigidity of the stems. This information is largely destroyed in pressed herbarium specimens. It was a delight to finally see the South Australian plants in 3-D. Herbarium sheets suggested a plant that is

generally taller, less-branched and with thinner branchlets than Victorian plants. My field observations confirmed that information, and at the time it seemed that the South Australian plants differed from the Victorian populations of the Volcanic Plain form. Then, in November 2010, my mentor Neville Walsh and I spent several days collecting plants in far south-western Victoria near the SA border. At a site near Dartmoor we discovered plants the same as SA plants when growing under tree canopy, and only metres away in direct light the plants had the habit typical of the gnarled form that I was familiar with on the Volcanic Plain. Our studies of herbarium specimens and plants in the field have now confirmed that all South Australian *Melicytus* plants belong to *M. angustifolius*, and that no consistent differences could allow separation into Volcanic Plain or Snowfields forms, so we now believe that these too are best treated as *M. angustifolius* with habits modified by their environments.

In order to gather specimens as widely as possible, our Tas-

BOOK REVIEW



Typical *Melicytus angustifolia* bush

manian colleagues kindly collected and sent fresh material to us.

With colleagues Jeff Jeanes and Meg Hirst (from the Victorian Conservation Seedbank), we are also undertaking seedling trials to determine if there are seedling differences or different requirements for germination between populations and/or species.

After having collected a comprehensive set of fertile specimens and field observations, I believe we have a better understanding of *Melicytus dentatus* populations in Australia, and that complex issues associated with identification of the species have been resolved. This will

allow for more efficient botanical communication, and better conservation, among conservators of the species.

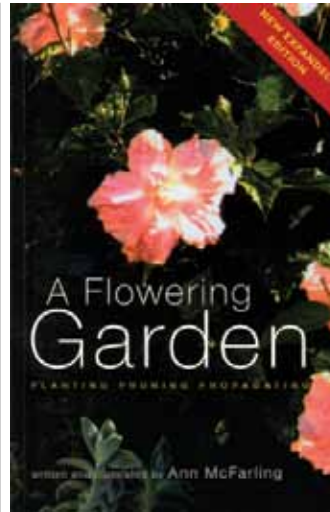
I am very grateful to the RBG Melbourne Friends' Scholarship Program which enabled me to undertake this project.

Val Stajsic
Identifications & Research Botanist, Plant Sciences & Biodiversity Division
Friends' Scholarship Winner 2009

Below left: Dark fruits on Melicytus dentatus.

Below right: Light coloured fruits on Melicytus angustifolius.

Photos: Val Stajsic.



A Flowering Garden (new expanded edition)
 Ann McFarling
 Lothian Custom Publishing, 2010
 RRP \$20.00 from RBG Garden Shop or ABC Book Shop



First Fruit
 Janet Tiller
 Treppenhaus Publishing, 2010
 35 Happy Hollow Drive
 Plenty, 3090, Victoria
 RRP \$35.00 from the publisher

Both of these books, by Friends of the RBG Melbourne, feature illustrations by the author – but there the similarity ends.

Ann McFarling has produced a how-to book comprising practical notes on how to care for more than seventy

common garden plants. Ann compiled the notes through working in her own garden, so chances are this is the way these plants will work in the Melbourne metropolitan area. She features a comprehensive month-by-month 'what to do in the garden' diary, which provides very useful, hands-on information about feeding, watering, dividing and pruning. Her line drawings illustrate each entry.

Janet Tiller is a botanical artist who has trained at the RBG Melbourne. Her elegant book called 'First Fruit' showcases her paintings and includes over fifty of her delicate botanical studies. They are paired with verses from the Bible; various observations about her life and her garden; and comments about her development as an artist. The book is intended for reflection about the nature of creation and life itself.

Terri Kay



Schinus molle - Peppercorn.
One of the illustrations from First Fruit by Janet Tiller.

June

- 14 Illustrators' Quarterly Meeting
- 17 Growing Friends' Nursery open 9 am to 1 pm
- 22 Insiders Walk - Temple and Lych Gate
- 24 Guided Nursery Visit; GF Nursery open
- 24 Growing Friends' Nursery open 9 am to 1 pm
- 25 Talk - Chelsea Garden Show

July

- 1 Growing Friends' Nursery open 9 am to 1 pm
- 5 Film Morning
- 8 Growing Friends' Nursery open 9 am to 1 pm
- 15 Talking Plants - Clematis
- 15 Growing Friends' Nursery open 9 am to 1 pm
- 18 Eternal Order in Nature Exhibition (EOIN) opens
- 21 EOIN Guided Tour 10 am
- 22 Growing Friends' Nursery open 9 am to 1 pm
- 23 Talk - Director of Kew Gardens
- 23 Term III Illustrators' Classes begin
- 24 Botanical Drawing Workshop
- 25 EOIN Opening reception
- 29 Growing Friends' Nursery open 9 am to 1 pm

August

- 5 Growing Friends' Nursery open 9 am to 1 pm
- 7 Eternal Order in Nature Exhibition closes
- 9 Fit Friends' Ramble - South Melbourne
- 12 Talking Plants - Winter Wonders; GF Nursery open
- 17 Talk - Botany of Burke and Wills
- 19 Growing Friends' Nursery open 9 am to 1 pm
- 26 Growing Friends' Nursery open 9 am to 1 pm
- 31 Register interest in Menindee trip

October

- 1 Eucalypts Exhibition opens
- 16 Eucalypts Exhibition closes

November

- 14 Annual General Meeting

BOTANIC NEWS is produced quarterly for Friends of the Royal Botanic Gardens, Melbourne Inc. which was formed to stimulate further interest in the Gardens and the National Herbarium and to support and assist them whenever possible.

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Gate Lodge
100 Birdwood Avenue
Melbourne Vic 3004
Tel: (03) 9650 6398
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Email:
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Website:
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Photo by Jennifer Marshall