THE BOTANIC GARDEN

A Newsletter for the Botanic Gardens of Australia and New Zealand - www.bganz.org.au



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THE BOTANIC GARDEN

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 ACT Plant Census Updated

 Brendan Lepschi, Herbarium Curator, Centre for Plant Biodiversity, Canberra

 Australian Network for Plant Conservation 2nd National Forum
 'Minding our own biodiversity: conservation on private land'
- Australasian Conference of Voluntary Guides in Botanic Gardens

- Water Impact in Adelaide Botanic Gardens

EDITORIAL

Goodbye and hello!

Philip Moors

In late November we farewelled Virginia Berger, our highly effective and much appreciated Executive Officer. She commenced in that part-time role for the Council of Heads of Australian Botanic Gardens (CHABG) in late 2000 and soon became involved in the establishment of BGANZ. Virginia was instrumental in organising and making the Gardens 2001 Congress in Canberra such an outstanding success – effectively this became the first BGANZ Congress. She then drafted the BGANZ Constitution and administered all the practical details of setting the organisation up. By 2004 she had 'morphed' into the BGANZ Executive Officer – with the enthusiastic approval of CHABG – where she remained part-time until her retirement last year.

Quite simply, neither CHABG nor BGANZ could have functioned without Virginia's organisational skills, attention to detail, and flexibility. Along with routinely managing councillors spread across two countries, she developed this newsletter into the informative and attractive publication which we all look forward to receiving and reading, grappled with the intricacies of setting up the BGANZ website, and retained involvement with various BGANZ congresses, workshops and Council meetings.

On behalf of the BGANZ Council, it's a pleasure to thank Virginia for all her contributions to CHABG and BGANZ and to acknowledge her quiet, behind-the-scenes competence and gracious good humour.



BGANZ Council I-AGM Sydney Nov08

As we were saying goodbye to Virginia, we were welcoming Brigitta Wimmer, our new Executive Officer. Brigitta also lives in Canberra and will continue to be based at the Australian National Botanic Garden (and Council's thanks to Anne Duncan, ANBG Director, for continuing to host the BGANZ Secretariat). Brigitta comes with extensive administrative experience and an interest in gardens, and we look forward to working with her in the years ahead. Already she has started some new initiatives which she mentions in her introductory article in this issue of *The Botanic Garden*.

Our 2008 AGM was held at the Royal Botanic Gardens Sydney on 24 November. An important agenda item concerned amending the BGANZ Constitution to formally permit the establishment of BGANZ Regional Groups. We already have four active groups (New Zealand, Queensland, New South Wales, Victoria) and hopefully will have more in future. BGANZ Council, in consultation with the regional group committees, is now finalising the set of rules under which the groups will operate. The amended Constitution (the main change is inclusion of a new clause 20A) can be consulted on our website, and the group rules will also be posted there once they have been finished.

Our 'Big Event' this year is the 2009 BGANZ Congress in Mackay, hosted by the Mackay Regional Botanic Gardens. The Organising Committee is hard at work developing the program and speakers on the theme of *Plan(e)t Priority: Regional Reality.* There is more information about the Congress in this issue – it's going to be yet another stimulating and enjoyable conference, so make sure you're there! As for previous meetings, BGANZ will be offering travel support grants; details will be circulated in due course. I look forward to meeting you in Mackay in October!

Hello to all recipients of the BGANZ Newsletter and particularly to all BGANZ members!

Brigitta Wimmer, BGANZ Executive Officer

Since Virginia Berger left I have been familiarising myself with BGANZ - but must confess to being a bit anxious about producing 'my' first Newsletter! Everybody has been extremely helpful, but please bear with me until I know who is who and what is where – and above all – what are the priorities for making BGANZ bigger and better. I will be counting on your contributions to make this happen!

First a house-keeping issue that has finally been resolved (more or less): we now have the generic email address <u>bganz.secretariat@environment.gov.au</u> that we will promote as the main means of contact. You may notice that sometimes emails still originate from my personal email <u>brigitta.wimmer@environment.gov.au</u>. Don't be alarmed, we are working to iron out these little IT quirks, and rest assured, all emails will reach me.

In preparation to improve the BGANZ website I am also in the process of reviewing memberships and contact details. We hope to list all current members and have links to their websites (or other agreed contact details if preferred) up and running in the next couple of months. Please check then whether your name is actually mentioned. Did you forget to renew your membership? Would you like to join BGANZ as a new member? After all, BGANZ depends on its members for support to keep growing and delivering real benefits.

Connected with membership – Council has agreed to simplify payments and update membership application forms. These will include BGANZ bank details for direct debit payment. The new information should be posted on the web by the end of March. Current members will also be informed by email.

The next step for the BGANZ website will most likely involve providing links to other botanic gardens and relevant organisations. We also would welcome your suggestions as to what other information you would find useful - eg advertising events, programs or positions that are coming up.

Would it be useful for members to share some of their experiences on the Web? Or post questions that may be answered by others?

I am looking forward to a very productive year and hope that BGANZ and all its members will continue to 'blossom'.

MEETINGS AND CONFERENCES

IMPORTANT REMINDER

BGANZ Biennial Congress

Mackay Regional Botanic Gardens, Queensland

Thursday 8 October - Sunday 11 October, 2009.

Preliminary details have been posted on the BGANZ website, and we will continue to provide more information on the website and to all current members via email.

The theme 'Plan(e)t Priority: Regional Reality' has been chosen because of growing concern for the planet and its ecosystems as a result of global warming, climate change, economic insecurity and manmade impacts on the natural environment. Regional centres are the ideal location to focus attention on improving the impact of the manmade footprint on the planet and to recognise the unique role each region can have towards achieving results. The unique vegetation of regional areas and the role of Botanic Gardens in regional centres and their significance now and for the future will be explored and presented at the congress.

The Congress aims to recognise the **role and responsibilities of botanic gardens** as a resource for the future preservation of species and to support the global effort to retain significant and regionally important plant materials. This will be explored through a series of guest speakers, workshops and discussion groups. Other presentations at the Congress will address topics relevant to education and community engagement, along with other crucial garden support roles.

The Congress commences on Thursday 8 October with a skills based workshop and welcome reception in the evening. On Friday and Saturday there will be formal conference sessions, networking opportunities and a trade exhibition. Social events are planned for both evenings. A post congress tour of rainforests of the magnificent Eungella National Park will take place on Sunday II October. Informative and operational tours of the Mackay Regional Botanic Gardens will also be offered as an alternative to the full day tour to Eungella.

Other opportunities for involvement - Botanic Gardens, Landcare and Conservation Groups and associated organisations are invited to erect displays linked closely to the theme in the foyer and breakout areas of the Congress. A corporate trade exhibition is available for corporations, sponsors and suppliers to Botanic Gardens. Sponsors are also being sought for high profile naming rights to certain elements of the Congress.

Contact <u>sam@wombatcreative.com.au</u> for more information about these opportunities. For further information about the Congress, or to join the mailing list, contact: Samantha Morris or Racquel Lyons, BGANZ Congress Secretariat, Ph: **07 5538 5109**, Email <u>bganz@wombatcreative.com.au</u>

BGANZ Future - workshop planned at Mackay Conference

Anne Duncan, Director, Australian National Botanic Gardens, BGANZ Treasurer and Public Officer

BGANZ has been going since 2004, nearly five years. Our new Executive Officer is doing a great job and asking lots of hard questions about why we do things and what to focus her time on. Changes have been made to BGANZ and the recent changes to allow for regional groups is an example of that. With a new Executive Officer it would be timely to review where we are at and think about what BGANZ should be doing to get where it wants to go?

- Does BGANZ need a business plan and if so what should be in it?
- Where does BGANZ want to be in five years time? What is feasible?
- What kinds of benefits/services should BGANZ be providing?
- How do we provide those benefits and services?
- How should BGANZ grow its membership?
- There are many more questions...

Have your say....

An open forum session has been planned as part of the 2009 Congress, to consider these questions and other issues members would like addressed. However not all BGANZ members or other interested parties will be attending, so an email survey is planned in the next few months to review where BGANZ is at and canvas views about where it could go more broadly. In addition please feel free to send any comments/ suggestions via email to the BGANZ secretariat.

FEATURE GARDEN

Mackay Regional Botanic Gardens (MRBG)

Dale Arvidsson

The MRBG in all its glory, inviting visitors to explore further! The MRBG are a showcase of the flora of the Central Queensland Coast bioregion - a diverse area featuring lush tropical rainforests, wide sweeping beaches, mangrove lined creeks and waterways and open sclerophyll eucalypt forests - all surrounding the Queensland coastal city of Mackay.



Makay Regional Botanic Gardens

Within the botanic collection, flora from the Mackay Region and other similar climatic regions from Australia and around the globe are displayed in geographical, thematic and taxonomic themed gardens over a 50 hectare riparian site.

Meandering along the banks of The Lagoons, once the main channel of the Pioneer River, the Gardens Stage I officially opened in May 2003 - making this one of the newest of Australia's Botanic Gardens. Here the tropical and subtropical communities of Australia intermingle to create a diverse and interesting landscape - and a fun and relaxing place to visit! Stage 2 development and botanic themed playgarden "Under the Banyan" were launched in July and September 2006.

The gardens have been planned to interpret many of the natural physical features of this region of Queensland, with spectacular landform representations accessed by a system of pathways, ramps and bridges. Boardwalks span sections of the lagoon to allow close-ups with wetland species and newly-created wildlife habitats.

Over 88% of plants located here in our formed and natural landscapes are bioregional Australian natives. The very best and most spectacular plants of the region are displayed in Gardens representing sun and shade, coastal, and a variety of forest communities. The petals and stamens of the Cooktown Orchid - Queensland's floral emblem, were the inspiration for the design of the Gardens Visitors Centre - a unique modern building sited high above the slopes of the lagoon to provide views and vistas from observation decks some 10 meters above water level.

The diverse cultural heritage and make-up of Mackay is celebrated in specialised gardens displaying the cultures of the Australian South Sea Islanders, Torres Strait Islands and Maltese through inspired landscapes.



L Smith Qld -Mackay RBG Visitor Centre

The Visitors Centre also provides facilities including the Lagoons Gallery, featuring exhibitions and information, the Lagoons Café with spectacular decks overlooking the gardens site, Herbarium, Administration and public meeting facilities. A vibrant visitor services program uses fun and informative discovery to welcome children and adults into the beautiful, fascinating and sometime very strange world of plants and an active Friends of the Gardens volunteer group supports many roles, including planting, guided walks, events and the Herbarium.

Work on the Mackay Regional Botanic Gardens will continue over an amazing 17-year period. It's a growing attraction!

PROFILE

Paul Scannell

Curator, Albury Botanic Gardens



Self portrait:

Music Nut
Billy Connolly and Monty Python fan
Amazed at all things natural
"Give me a garden and water and I am happy....."

I agree totally with Mark Fountain's closing statement from his profile (Issue 21), we are privileged to work in such glorious Gardens.

I love my job and I see great things happening each day. These r old earning pocket money, doing weeding and mowing for friends of the family and relations, I would never have known what lay ahead for me. My mum Betty's green finger rubbed off on me at an early age and we were always renovating little areas of the backyard. As I became a teenager, the backyard turned into the best ever mini-golf course and the most elaborate turf wicket ever

seen in Melbourne's suburbs. All of this was built around mum's impressive garden, the lizard cage and the biggest apricot tree known to all my friends.

Gradually the pocket money turned into summer holiday wages working for landscape gardeners, where I soon found my real passion for garden design and construction. Building gardens for friends and families on weekends became a regular occurrence and these soon began to take up a lot of my spare time.

My great school mate, Barry Murphy thought Burnley Horticultural College was the place we should be and so off we went to get a Diploma of Horticultural Science. What a fantastic adventure! Meeting people from all over the world, playing in the "world famous" coffee shop band, "The Flying Punchinello's" (okay, well we thought we were really good....), visiting all the latest horticultural ventures and playing the lecturer's in the annual Staff vs Students Football match.

After graduating from Burnley, I was lucky enough to work in spectacular surrounds like the Melbourne Domain and Govt House border, curator of the I20 year old Austin Hospital grounds, directing my landscape design and construction company in the hills of Eltham for 4 years and then moving to Albury where I started two great adventures in my life. Having my two fantastic children Mick and Jimmy and working at the Albury Botanic Gardens.

Under the guidance of James Jenkins, our then Horticultural Supervisor of Parks & Rec, he afforded me wonderful professional development chances. Having been given the chance to be on the Australian Network for Plant Conservation as secretary, putting my hand up for the International Education in Botanic Gardens Congress Working Party in Sydney, getting the CHABG grant to run the Staff Development course at ANBG Canberra and having a go on the BGANZ council as NSW representative, I have a lot of people to thank for where I am now. (Which I hope I do often enough?)

Jason and the brilliant staff at the Gardens make sure we all enjoy each day at the Gardens, caring for each different element of the 130 year old collections with great pride. Quality customer service is essential and our staff do it very well. They enjoy taking tours, conducting education programs and assisting with art classes, to provide an opportunity to show off the rewards of their hard work. No wonder the Gardens are the top rating Council facility every year, since our customer satisfaction surveys began around 8 years ago.

On top of all that, I am also now lucky enough to work in our bush with our Wiradjuri elders, show children the natural wonders of our region, do threatened species surveys and monitoring, have great mentors and have fantastic, passionate and funny friends all over the world.

Currently, I am working with our amazing Friends group, trying to raise around \$300,000 for the community input factor for the \$900,000 Children's Garden. Wiradjuri mentors and teenagers, mums, artists, community service groups, business people and motivated volunteers, make for exciting days at work every day.

Gardening has always been a noble pursuit and to hear children laughing and to see people smiling in our Gardens, certainly does mean we are all privileged to work in such special places. I love my job.

REPORTS

National Strategy and Action Plan for Role of Australia's Botanic Gardens in Adapting to Climate Change – endorsed by Ministers and adopted by BGANZ.

Anne Duncan, Director, Australian National Botanic Gardens

At the CHABG meeting held in Adelaide on 30 November 2006 Australia's botanic gardens agreed to work together to address the challenge of climate change. On November 8th 2008 the Strategy was endorsed as a nationally significant initiative by the Commonwealth and State and Territory Ministers for Natural Resource Management. The document was publicly released by Commonwealth Environment Minister Peter Garrett on 24th November. There was some press coverage both radio and newspaper, both in the capital cities and in a few regional papers. Since then the BGANZ Council has also adopted the Strategy.



But what difference will the strategy make?

Improve understanding and profile of botanic gardens

Well, one of the aims of the strategy was to put botanic gardens more on the map as institutions which had a role to play in responding to climate change. The bureaucratic process of having the strategy approved achieved that to some degree since it required briefing State and Commonwealth environment and conservation departments and finally Ministers about botanic gardens and what they did and could do. For the public the document is also useful for communication as it explains in quite simple language the role of botanic gardens and the challenge of climate change for plants.

Provide a focus for collaboration between gardens.

The goals (see inset) provide a clear focus for gardens to work together: on ex-situ conservation, provision of information about plants; long term monitoring of plants response to environmental change and community awareness and engagement.

Strategy Goals

- Coordinate a national safety net for plant species through ex-situ conservation
- Deliver integrated and easily accessible information about Australian plant species
- Establish a long term monitoring program of plant responses to environmental change
- Increase national community awareness of climate change and facilitate effective responses

The actions (inset) outline more specifically where gardens can work together on key tasks that will make a difference to plant conservation.

Strategy Actions include:

- Develop national priorities for ex-situ conservation and align with climate change vulnerability
- Implement best practice standards for ex-situ conservation
- Coordinate a distributed seed bank network
- Develop strategic partnerships with seed bank user groups
- Phased development of coordinated information system to deliver information about plants
- Establish long term monitoring (in partnership with Earthwatch)
- Develop a coordinated community awareness agenda for Australian botanic gardens in relation to biodiversity and climate change
- Seek strategic partnerships to assist delivery of outreach programs

Many of these actions are already under way. CHABG has funded the development of a strategy to coordinate seed banking on behalf of the Australian Seed Conservation and Research (AusCaR) network and this will be used to prepare submissions for funding. In the process of doing this, user group discussions are taking place and some important strategic partners such as Greening Australia's Florabank have become engaged. There have also been discussions with Earthwatch about botanic gardens being partners in their national climate watch initiative – engaging the public in monitoring phonological changes. All the capital city botanic gardens discussed coordination of climate change messages for community messages at a workshop and agreed to implement four key messages (inset) into their current programs while discussing concepts for a national program.

- Plants are central to cycles of the planet (carbon, water, nitrogen, etc).
- People and plants will determine the future of climate change. Plants do, and people can, reduce the impact and adapt to climate change.
- Botanic gardens are special places with an essential role in research, education and conservation.

 They provide a forum for communicating about the impacts of climate change on plants and biodiversity.
- Botanic gardens are special places for people to research, learn and debate climate change.

Identifies some tough challenges for the future

One of the key issues that the strategy has highlighted is the need to consider the information our collections hold and how useful it might be for the information to be coordinated, so that we could easily extract information about what survives and grows in botanic gardens all over Australia and where the gaps might be in our collections. Many other nations are also considering their "national collections" as a result of the climate change challenge.

For example the American Public Garden Association (BGANZ's US equivalent) has a program called the North American Plant Collection Consortium that coordinates information about national collections of significant species of horticultural or conservation interest. The application of this concept of a "national collection" which all botanic gardens could contribute to is something that needs more thought and discussion and which BGANZ members might like to think about.

The strategy is really just the start of "the whole is greater than the sum of the parts" thinking applied to Australia's botanic gardens. In the end—the difference it makes is up to us. The Strategy is available online at www.anbg.gov.au/anbg/botclimate/index.html, but if you wish a printed copy or copies to assist in raising the profile of botanic gardens, please send an email to the BGANZ Secretariat.

BGANZ New South Wales Regional Conference September 2008 – 'Accentuate the Positive'

A full report on the Conference has been posted on our website at www.erbg.org.au. Those who do not have access to the Internet can request a copy from Harry Phillips.

Our Conference 'Accentuate the Positive', held at the Eurobodalla Gardens, was a great success. We were lucky to have presenters and participants from a wide range of Gardens. This was due to John Knight's vision and determination to make the conference the best yet. His selection of speakers (with early assistance from Paul Janssens, then of the Australian National Botanic Gardens) created a fine balance between the theoretical and the practical, which was well received by participants. The help from volunteers, particularly Heather Haughton, Harry Phillips and Jenny Liney of the Conference organising Committee was outstanding. We had the best attendance figures for any NSW BGANZ conference yet - overall we had 109 delegates, with extra guests attending the Conference dinner.

Gardens and other organisations represented

Botanic Gardens

Albury Botanic Gardens Australian National Botanic Gardens Barossa Bushgardens S.A. Booderee Botanic Gardens

Burrendong Arboretum
Cowra Japanese Garden
Eurobodalla Regional Botanic Gardens
Gold Coast Regional Botanic Gardens
Hunter Regional Botanic Gardens
Mount Annan Botanic Garden
(Botanic Gardens Trust)
Mount Tomah Botanic Garden (BGT)
Royal Botanic Gardens Sydney (BGT)
Royal Botanic Gardens Cranbourne
Royal Botanic Gardens Melbourne
Stony Range Botanic Gardens

Wollongong Botanic Garden

Friends Organisations

Friends of Australian National Botanic Gardens
Friends of Bendigo Botanic Gardens
Friends of ERBG
Friends of Karwarra Garden
Friends of Orange Botanic Gardens

Friends of RBG Cranbourne Friends of the Royal Botanic Gardens Sydney

Local Government

Bega Shire Council
Eurobodalla Shire Council
Orange City Council
Wellington Shire Council Vic

Government Organisations

Dept of Parliamentary Services

Forests NSW

Schools / Colleges

Tafe - OTEN Dubbo

Tafe - NSW Yallah

Other Organisations

Australian Native Plants Society Canberra Region Bywong Nursery Horse Island gardens Bodalla Skyline Tree Services

Particularly pleasing were

- Eurobodalla Tourism's assistance with registration and accommodation.
- It was done efficiently by staff at the Batemans Bay Visitors Centre and was a sound investment.
- Excellent response from all the volunteers who staffed the registration tables, assisted with catering and with a plethora of other functions
- High quality arrangements by the Catalina Club and pro-active assistance from their staff
- Enjoyable social activities, especially the welcome reception and the dinner
- Publicity: Eurobodalla Tourism's support for an exceptionally attractive program ensured we were able to distribute an excellent marketing tool. Local media (print and radio) reported on the conference before and after.
- Good response from sponsors, whether by way of supporting the attendance of some participants or providing finance for general or particular expenses.
- The participation by Year 10 Moruya High School students under supervision from Carolyn Noake to make the conference DVD.

Sponsors included

- Eurobodalla Shire Council
- Friends of ERBG
- Forests NSW
- Eurobodalla Coast Tourism
- Catalina Country Club
- Coachhouse Marina Resort
- Friends of Australian National Botanic Gardens
- Australian Native Plants Society Canberra Region
- Australian Plants Society South East NSW Region
- Batemans Bay and District Horticultural Society
- Garden Clubs of Australia Inc.
- Moruya Garden Club

Monday evening saw all delegates join invited guests at the Conference Dinner, where the ERBG 21st birthday was celebrated.

The Master of Ceremonies for the night was Chris Vardon, a past Mayor of Eurobodalla Shire, and long time supporter of Eurobodalla Regional Botanic Gardens. Chris was joined by his wife Judy.

Guests for the evening were

Mrs Helen Rees, founding member of the Friends of ERBG, and still a volunteer, Mr Don & Mrs. Audrey Walton, both current members of the Friends Committee, with Don being the current President, a role he has filled for 15 years, and Council's recently appointed General Manager, Paul Anderson and his wife Mel.

Chris opened proceedings by relating a little of the story of the ERBG, praising the efforts of the Friends and volunteers. He then called on Helen and Don to step forward and cut the 21st birthday cake, a task they revelled in.

The whole room stood and erupted into song, singing Happy Birthday before decorum was once again restored.











There followed an auction to raise funds for the next Conference to be held at the Hunter Regional Botanic Gardens in 2010. Fittingly our Apprentice Ryan Harris was the successful bidder. Chris then called on Mel Anderson to draw the first of the donated prizes, with winners drawing the next ticket until all prizes were won.

Bay Theatre Players presented 3 short and topical light hearted skits, which were well received by those attending, who by this time had enjoyed more of the Deua Flame and Deua Dream wines during the evening. Music was provided by local group 'Round Midnight, who serenaded us with their brand of light jazz.

Batemans Bay and District Horticultural Society.

The cake was made and decorated by Frederick of the Chef's Cap Cafe.

Don Walton and Helen Rees ready for the ERBG 21st birthday ceremony.

Don Walton, and Leisa Brennan with Dr Tim Entwisle, Executive Director of the Botanic Gardens Trust Sydney at the dinner.

Val Wass organised for the beautiful floral table decorations to be arranged by Joy and team of the

Former Mayor Chris Vardon, now Clr Chris Vardon, was the MC at the 21st birthday party for ERBG held on the Monday night at Catalina Country Club. Chris was in fine form, entertaining the delegates and guests.

Interpreting Darwin's scientific legacy at the Botanic Gardens Trust in Sydney

Janelle Hatherly, Manager Public Programs

When HMS Beagle docked in Sydney Town in 1836, the young Charles Darwin strolled through the fledgling gardens that would become the Royal Botanic Gardens and Domain and looked favourably on them, stating:

"...there are no fine trees, but the walks wind about the Shrubberies & are to me infinitely more pleasing than the formal Alamedes of S. America" (A.J. Marshall, *Darwin and Huxley in Australia*, Hodder and Stoughton, Sydney 1970. pp 89–90).



Many people are unaware that Darwin visited these Gardens and continued to collect and study plants throughout his life. His life's work continues to inform our scientific research and inspire our education programs. This historic event and the important role plants played in Darwin's work give the Botanic Gardens Trust something special to celebrate in this the year that marks the 200th anniversary of Charles Darwin's birth and the 150th anniversary of the publication of his *On the Origin of Species*.

In preparation for a dynamic year-long program of events and exhibitions the Trust coordinated a two-day *BGANZ Signage and Interpretation Workshop* for professional colleagues on 24–25 November 2008. Thirty two delegates (representing 14 regional gardens, six state botanic gardens, Centennial Parklands and one New Zealand botanic garden) took part in practical sessions specifically designed to look at ways of interpreting Darwin's contribution to evolution in signage, outdoor displays and public programs. Presentations from landscape, graphic and exhibition designers, academics, educators and policy makers showed the many elements that need to be considered to produce effective interpretation. Participants also had the opportunity to evaluate various displays around the Royal Botanic Gardens, take tours with volunteer guides and attend the BGANZ Annual General Meeting.

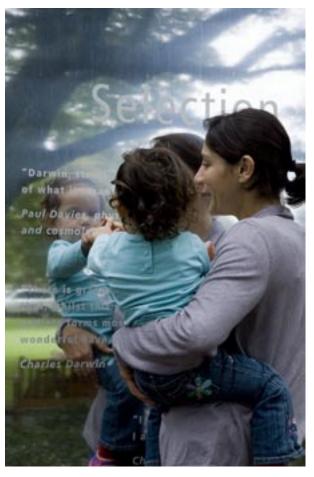
The Trust's celebrations to acknowledge Darwin's legacy began in earnest on the eve of Darwin's 200th birthday with *Dining with Darwin: Evolution and extinction, adaptation and climate change,* a joint initiative with the Australian Museum. Over 180 guests joined host Jennifer Byrne and a panel of experts including Clive Hamilton (social commentator and author), Prof. Hugh Possingham (Wentworth Group of Concerned Scientists), Nicole Kuepper (Eureka Prize winner) and Dr Mike Raupach (Co-Chair, Global Carbon Project) for dinner and lively discussion at the Trust's Pavilion Restaurant.



The following day – 12 February – over 200 staff and volunteers, scientists and members of the public celebrated Darwin's birthday with cordial and cupcakes (decorated with the individual letters of Darwin's name) and arranged themselves in the shape of Darwin's name for a historic photo. This event also launched a spectacular interpretive sculpture in the Gardens that reflects Darwin's significant contribution to our current understanding of biodiversity and the origin of life.

Visitors' attention is readily drawn to the installation as it comprises six mirrored letters, each over two metres high, spelling out Darwin's name. These huge letters nestle amongst the foliage and trunks of 'the Myrtales Bed' which was designed about 50 years ago to celebrate the Trust's scientific research on the evolution of plants. The mirrored surfaces symbolise Darwin's obsession with nature and his passion for detailed observation. They also reflect the surrounding garden bed, the city, the harbour and passing visitors, embodying Darwin's theory that all life forms are part of one 'tree of life'.





Darwin's ideas and scientific work are more important than the man himself, so the mirrored surfaces offer insights into his musings as well as those of a few other great minds, including some of the Trust's own scientists. Quotes, primarily focusing on plants and botanic gardens, appear to 'just hang there' - like moments of inspiration or clarity of thought - in an attempt to offer explanations and provoke responses. In addition, key words (Evolution, Extinction, Variation, Inheritance, Adaptability, Selection and Divergence) hint at Darwin's 'grand unifying theory'. On the reverse side of the 'D' is a giant picture of Darwin and a small amount of text encouraging visitors to go to the Trust's website www.rbgsyd.nsw.gov.au for more inspiration (especially about the quotes) and to come behind-the-scenes at the Royal Botanic Gardens in National Science Week.

Future Vision-making at the Australian National Botanic Gardens Lucy Sutherland



The staff at the Australian National Botanic Gardens are in a flurry of activity this year as they start to set a 10-year vision and prepare the new management plan for the ANBG. Staff are starting with a comprehensive review of the ANBG's key programmes and extensive consultation at a local, national and international level to ensure that the ANBG continues to be relevant to Australian society and address government priorities.

A 'Have Your Say' consultation process from December 2008 to February 2009 has resulted in a number of written submissions received from the interested public and stakeholders. The issues highlighted in the written submissions will be explored in a series of focus groups to be conducted in late March and April in Canberra. In addition, staff will be consulting about the future of the ANBG with the State botanic gardens and stakeholders in each of the major capital cities in April, as well as undertaking an e-survey of regional botanic gardens.

For further information, or to register your interest for one of the capital city focus group discussions, please email Lucy Sutherland at the Australian National Botanic Gardens: <u>Lucy.Sutherland@environment.gov.au.</u>

ARTICLES BGANZ Queensland

Lawrie Smith

Representatives of most of the regional botanic gardens of Queensland together with Ben Wallace from ANBG and Jeanette Mill ANPC met at the Gladstone Tondoon Botanic Gardens in September 1994 to discuss the expanding network of botanic gardens throughout the state and identify the opportunities and constraints associated with developing the diverse gardens in the various regions. As a result of the weekend of discussion the 'Network of Regional Botanic Gardens - Subtropical and Tropical Zone' was formed, and the following vision and aims were agreed and subsequently endorsed by CHABG.

The Network Vision

To enable members to gain mutual benefit though cooperation, exchange of knowledge, ideas and experience, sharing of resources and increased strength associated with belonging to a large and influential organisation.

The Goals of the Network

- 1. To establish an effective system of communication between regional botanic gardens;
- 2. To ensure that the regional flora is well represented within a system of regional botanic gardens and managed to:
- promote botanical research of regional flora;
- introduce potentially suitable species into cultivation;
- provide ex-situ conservation in regional botanic gardens with an emphasis on rare, threatened and endangered flora;
- record information on specimens growing in the living collection;
- establish regional herbaria to include specimens of local species and genotypes as well as voucher specimens for the living collection;
- offer advice to the nursery industry and the media regarding species suitability for specific areas and situations:
- 3. To encourage research, establishment and display of plant material suitable to the region with specific emphasis on the regional flora;
- **4**. To increase awareness of the collective strength and influence of botanic gardens through network representation at local, state and federal government level to seek funding and assistance through appropriate programmes;
- **5**. To establish effective promotion and public awareness programme for regional botanic gardens and the network;

- **6**. To promote to local authorities the scientific, economic, educational, heritage, cultural and recreational values available through regional botanic gardens for their communities;
- **7**. To promote the use of skilled operational procedures and develop the potential for specialised training.
- 8. To develop a spirit of cooperation between regional botanic gardens;

Since then NRBG has continued on in a series of ups and downs, always invigorated by several conferences when everyone could personally experience the benefits of closer relationships through the Network. The 2008 Gold Coast conference, held in association with CHABG, saw the network agree to reform as the Queensland branch of BGANZ. It is hoped that being part of this national and international body will assist to increase recognition and status of member gardens as well as advance the identified vision and goals.

Regional Botanic Gardens in Queensland

In Queensland there is at least one botanic garden established in eight of the thirteen bioregions into which the state is classified. Some gardens have been established for more than a century, others are comparatively 'new' commenced over the past 10 - 20 years and several more are in the planning stages.

The principal regional botanic gardens of Queensland are as follows:

SOUTH EAST QUEENSLAND BIOREGION

- Bundaberg Botanic Gardens

- Gold Coast Regional Botanic Garden

- Hervey Bay Regional Botanic Gardens

- Maroochy Bushland Botanic Gardens

- Redcliffe Botanic Gardens

Redlands IndigiScapes

- Tamborine Mountain Botanic Gardens

- Toowoomba Botanic Gardens, Queens Park

Collection

Wide Bay and hinterland

Southeast Queensland coast & hinterland

Great Sandy Region Coast

Sunshine Coast & hinterland

Wallum & Moreton Bay Coast Redlands & hinterland, amenity

Montane forest & temperate exotics

Native & exotic plants of the Great Divide

BRIGALOW BELT BIOREGION

- Gladstone 'Tondoon' Botanic Gardens

- Rockhampton City Botanic Gardens

Rockhampton Kershaw Botanic GardensTownsville Botanic Gardens, Anderson Gardens

- Townsville Botanic Gardens, Palmetum

- Townsville Botanic Gardens, Queens Gardens

Port Curtis native species

Dryland amenity, fruits, palms, cycads

Central Queensland native species

Dry tropics native species

Native & exotic palms

Colonial botany & amenity horticulture

DESERT UPLANDS BIOREGION

- Emerald Botanic Gardens

Desert Uplands bioregion

CENTRAL QUEENSLAND COAST BIOREGION

- Mackay Regional Botanic Gardens

- Whitsunday Regional Botanic Gardens

Central Queensland Coast native species in planning

WET TROPICS BIOREGION

- Cairns Botanic Gardens

- Innisfail Regional Botanic Gardens

- Tyto Wetlands, Ingham

Wet tropics, palms, gingers, aroids in planning for expansion regional wetlands

MULGA LANDS BIOREGION

- Goondiwindi Botanic Gardens

- Myall Park Botanic Gardens, Glamorgan

Western woodlands
Western & dryland species

MITCHELL GRASS DOWNS BIOREGION

- Longreach Botanic Gardens

Western & dryland species

CAPEYORK PENINSULA BIOREGION

- Cooktown Botanic Gardens

Wet tropics, Banks & Solander heritage

2008 Gold Coast Conference

More than 50 people, representing sixteen gardens, attended the 2008 Gold Coast conference targeting a range of issues of interest that members had requested and much valuable information was shared in discussion both during and after the presentations from specialist presenters. The main items of interest include:

Plant Records and Location Database

Several of the larger botanic gardens have databases in development and the most versatile and 'user friendly' seem to be that used by Cairns and Townsville, based on the BGCI system. Delegates agreed that it was vitally important that a common system be developed and adopted by all botanic gardens throughout Queensland and Australia. Obviously plant records are the most fundamental component of a botanic garden and consequently needs closely integrated attention nationally. The conference suggested that investigations be commenced to ascertain the possibility of sourcing suitable funding or sponsorship to develop a basic programme which could be used nationally but tailored to suit specific local situations as necessary.

Funding and Recognition

Recognition of the value of a botanic garden to a local community, to tourism, environment sustainability etc, was considered imperative as was the increasing need for adequate related funding. Most gardens struggle to continue their basic development and maintenance procedures to say nothing of important research and development initiatives. It was suggested that this is another aspect where the collective input of BGANZ members would be of considerable advantage. Obviously the press release from Environment Minister Peter Garrett concerning the important role of botanic gardens in responding to the challenges of climate change is a major step forward in recognition at federal government level — let's all build on this for mutual advantage.

Roving Botanist

Many of the smaller, less-developed botanic gardens indicated that they would find great benefit in obtaining the occasional 'as need' services of a 'roving botanist' who would be available on a cost-sharing basis possibly with state government funding. It was suggested that the botanist would spend agreed time in a regional botanic garden assisting in specific areas where local expertise is limited or unavailable. Just how this position would work is yet to be determined but members have expressed a number of ideas that need resolution.

Australian Centre for Lifestyle Horticulture

One major collaborative benefit that resulted from the conference is the acknowledgment by the ACLH of the value of using botanic gardens to extend their research base across various bioregions. The ACLH is an initiative of the Queensland Government Department of Primary Industries based at the Redlands Research Station in southeast Queensland. Already ACLH has established trial grass plots in the Mackay Regional Botanic Gardens to ascertain how new lawn grass cultivars, developed in Brisbane, will react in the humid tropical conditions in Mackay. It is hoped to expand this programme to other gardens, as well as introduce similar research initiatives into the introduction of new plants and cultivars for amenity horticulture.

BGANZ Conference 2009

Queensland's Regional Botanic Gardens are pleased to be part of BGANZ and look forward to a productive and stimulating association as together we collectively develop and expand the network of botanic gardens throughout the regions of Australia and New Zealand.

The Curator and staff of the Mackay Regional Botanic Gardens encourage everyone to plan to come to central coastal Queensland for the BGANZ Conference in October 2009 to experience firsthand the unique plants and environments of these tropical regions which are so uniquely different to those 'south of the Queensland border.

Botanic Gardens At Bendigo Set To Grow

Kevin Walsh

The Bendigo Botanic Gardens at White Hills in Victoria is undergoing significant reassessment and design as part of the City of Greater Bendigo's commitment to the site.

A Master Plan for the rejuvenation and extension of the Botanic Gardens at White Hills is being prepared in-house by the City of Greater Bendigo's Landscape and Open Space Planning team. The area under consideration is approximately 25 hectares and includes the original Gardens, the original acclimatization paddock (now a recreation reserve, which will be retained as such) and a greenfield site.

The proposed changes will restore the heritage section of the 151-year-old Gardens, while providing a contemporary extension which also meets the roles of a botanic garden in the twenty-first century.

The original Botanic Gardens at White Hills are Victoria's sixth oldest, having been set aside in 1857 as Bendigo's first public open space. The Gardens are on the Victorian Heritage Register and a Heritage Significance Assessment and Strategy was completed and adopted in 2008.

The Master Plan includes the proposed extension of the Gardens into eight hectares of council-owned land to the south of the existing Gardens, fulfilling the intention of council's purchase of the land in the 1990s. The extension straddles both sides of Bendigo Creek.

A range of key elements for inclusion in the site has been formed and these include such things as intensive plant collections; education/outreach; arboretum; children's garden; and a multipurpose space for events. A Living Plants Collections Plan is also being developed.

The City of Greater Bendigo also holds – in pieces – the nineteenth century cast iron conservatory that once stood in the Royal Botanic Gardens Melbourne. Council is investigating reconstructing this within the current site.

The development of the Master Plan involves ongoing consultation with stakeholders and members of the wider community. A steering committee is guiding the project and includes representatives of local stakeholders, the Friends of Bendigo Botanic Gardens and also Richard Barley, Director Melbourne Gardens, Royal Botanic Gardens, Melbourne. The Master Plan design is being peer-reviewed by Catherin Bull AM, the Elizabeth Murdoch Professor of Landscape Architecture, University of Melbourne.

An Options Paper was released in early February to give background to the Master Plan and encourage the community to provide input into a range of issues. Amongst these are two which are certain to provoke a range of responses. One is the question of whether or not to continue the practice of holding an animal collection within the Gardens. Bendigo has an uninterrupted tradition of an animal collection since the 1860s. The other contentious issue is the retention or removal of a small open-air swimming pool that was placed in the Botanic Gardens in the 1950s. This is reaching the end of its useful life, but has considerable sentimental value to the locals.

The Options Paper can be viewed at:

http://www.bendigo.vic.gov.au/Page/page.asp?Page_Id=2815&h=0. Input into the Options Paper is not restricted to locals and BGANZ members and other interested parties are also encouraged to have a say.

Further information: Kevin Walsh, Landscape Planner, City of Greater Bendigo

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Water Impacts in Adelaide Botanic Garden

Trevor Christensen Andrew Carrick

Adelaide Botanic Garden, South Australia, is situated in a mediterranean climatic zone with an average rainfall of approximately 550 mm per year. Rainfall is predominantly during the winter months with very little falling on average during the summer months, coupled with very low relative humidity levels. The three years since 2006 have brought extreme drought with average rainfall well below the yearly average:

- 2006 287mm (lowest rainfall on record)
- 2007 465mm
- 2008 402mm

The current summer period saw only Imm of rainfall during January and February.

Level three water restrictions are in place in Adelaide with suburban gardens and parks showing the ill-effects of prolonged drought and extreme temperature conditions. The Adelaide Gardens operate under modified water restrictions through the approval of the local water authority, SA Water.

A number of measures have been undertaken within the Adelaide Botanic Garden to reduce reliance on water. These developments have seen an increased emphasis on plant displays that have low-water requirements and include:

- the SA Water Mediterranean Garden
- the Whipstick Mallee display
- the redeveloped Cactus and Succulent Garden
- the upgraded water-wise display at the Sunken Garden
- extensions to the mallee display collection
- the Terrestrial Bromelaid landscape around the Amazon Water Lily Pavilion

Such displays provide an important interpretive tool to over 1.8 million annual visitors to the Gardens. These displays demonstrate and influence the community regarding appropriate plant selections for the South Australian environment.

In addition to low-water-use plant collections, greater emphasis has been given to harvesting and recycling water for reuse throughout the Gardens. This has included:

- Rainwater collection from the Museum of Economic Botany and Schomburgk Pavilion and stored in tanks beneath the Pavilion (capacity approximately 100,000 litres) for use in the water feature and public toilets.
- Rainwater collection from the Bicentennial Conservatory and used within the building.
- The re-routing of waste water from the desalinisation unit within the Bicentennial Conservatory to fill and maintain the Cascade Fountain, thus eliminating any reliance on potable mains water for this purpose. This saving alone amounts to approximately 5,000 litres of water per week during the drier months.

In 2006, low visitation areas were identified and watering ceased on approximately 20% of Adelaide Botanic Garden lawn areas, which resulted in these areas completely browning off. The expectation is that as soon as it rains these will reappear, since they are predominantly kikuyu. In the past year this figure has increased to 30% of lawn areas unwatered.

An alternative water source is also being investigated through testing for the viability of aquifer storage and re-use. These tests are in progress. If viable, a wetland system will be developed to the south and west of the Goodman Building for capture and filtering of water from First Creek storm events. This water would then be pumped into the aquifer to be later pumped into the irrigation supply lines when required.

First Creek drains stormwater from a large portion of the eastern Adelaide suburbs. Following heavy rain there is often considerable flooding through the Adelaide garden as well as deposition of rubbish washed into the waterway. A wetland system developed on First Creek at the eastern boundary of the garden will have the additional roles of filtering much of the rubbish usually carried through the garden and acting as a flood mitigation/flow control mechanism.

Funding has been committed over the next four years to further progress the upgrade of irrigation systems and technologies to improve the water application efficiencies and reduce water consumption. Ultimately, the irrigation will be fully automated, with water scheduling responding to real-time climatic conditions.

Water education messages, provided through the community education programs and the Sustainable Landscapes program, serve to inform the community on water issues and to provide alternative methods of dealing with water restrictions and water shortages in harsh climatic periods.



What lurks in the bush and fools males? Paul Scannell - Albury Botanic Gardens

While I conduct the threatened species surveys for our Crimson Spider Orchid (Arachnorcis concolor), I am amazed at the natural beauty that surrounds us, but also aware of how fragile its existence is. Land clearing, trail bikes and 4WDs, deliberately-lit fires, firewood and bush rock collection, 12 years of drought, and cattle breaking

through fences all add to our concern for the treasures our woodlands hold. Grazing of the single orchid leaf by native marsupials, like eastern grey kangaroos, swamp wallabies and possums as well as digging up by birds and echidnas also threaten these treasures that survive in our harsh bush landscapes. Indeed, threatened species surveys can be threatening to the plants themselves, as some of us monitoring and researching them trample around sites compacting the soil and reducing associated vegetation cover.

Our Box Gum Woodland is an endangered ecological community. One of many in Australia, it consists of a variety of gum trees as overstorey, with a complex understorey of grasses, herbs and forbs, including our Crimson Spider Orchid. With only 80–90 known plants left in the world, having the privilege of looking after our population of 18 plants leaves us with a big responsibility if we are to ensure any remain for our kids to discover later in their lives.

We have tragic, historic records showing that some women used to win prizes at our local show in the 1940's with armfuls of these beautiful orchids.

The orchids exist in shallow topsoils on granite ridge hillsides, along with the other 43 known species of orchids in our region. Scientists and keen amateurs have been trying unsuccessfully to propagate these large spider orchids for over 20 years and we are continuing to gather information and conduct research on them with the National Parks Recovery Team, Botanic Gardens staff and the Victorian Multi-Species Recovery Team.

The mycorrhizal fungi associated with the orchid and the specific pollinator, a thynnid wasp, add to the dilemma we face. The Crimson Spider Orchid replaces its tuber each season, so division is impossible. Seed will only grow within 25mm of an adult plant and it appears that adult plants may have a life span of between 10 and 15 years. Deflasking the orchid germinates into a potting medium has been the downfall of many laboratory attempts thus far, so scientists continue to research new methods.

Indeed, we are about to attempt trials on the Crimson Spider Orchid using encapsulation. Dr Karen Somerville from Mount Annan Botanic Garden, Sydney, will attempt to utilise this method, which may reduce failures during deflasking. This is a method for encapsulating both seed and fungi together in alginate beads (known as encapsulation—dehydration).

In trials conducted with *Diuris and Pterostylis*, beads transferred directly from in vitro culture to potting mix, resulted in the establishment of at least one seedling, and production of a healthy tuberoid, when transferred near the commencement of the natural growing season.

The encapsulation—dehydration method may have a practical application for use in ex situ conservation of other terrestrial orchids, as well as their mycorrhizal fungi (see Reference).

The mycorrhizal fungus is essential as it penetrates the minute seed coat to assist in germination. The male thynnid wasp pseudocopulates with the flower, lured by the pheromone exuded by the orchid imitating the female wasp pheromone. They are a mystery and may lend credence to the opinion in many circles, that they are so dependent on other organisms that arguably they may be approaching natural extinction.

So what do we do to protect them, while we are awaiting the scientists' opinions and decisions?

Ten years ago we were approached by local enthusiasts alerting us to the fact that this species was under threat from wayward cattle grazing. We gathered as much departmental help as possible to establish what could be done to protect them in the short term, while we went about establishing a recovery plan. Their taxonomic identification was essential and they have been classified as separate from but similar to a common species found elsewhere in the south-east of Australia and were only known from two viable sites and one non-viable site at a popular tourist spot. (Luckily 40 plants were discovered at a new site some 200 km away in 2004, to bring the total to 80-90.)

On a local scale, we enlisted the help of our indigenous Wiradjuri community and sought funding from various organisations to assist with fencing off the area to cattle grazing. The Wiradjuri community has been essential to the success of the program so far by enabling further survey works to be conducted hand-in-hand with indigenous heritage surveys and fencing construction and repair to reduce illegal vehicle damage in our woodlands.

In 2000, we were ably assisted during our surveys by GreenCorps volunteers from California on an exchange program. Within 20 metres of our first line search, 19-year-old Angela Butler from Los Angeles had found a new plant. It was an enormous moment for the whole group, as no new plants had been found during the previous three years of surveys.

The local community was invited to assist us with a Community Biodiversity Survey, which we undertook in 2003, to get a record of what was out there so we could manage our woodlands more appropriately. During this survey, three locals discovered two new plants. These successes were counter balanced by the fact we appeared to have two known adult plants not resurface for the third year in a row, which normally means they have reached their end. We continue to monitor and research these amazing plants and the stunning bushland they inhabit.

*Reference

(Australian Journal of Botany, 2008, 56, 609–615. Karen D. Sommerville, John P. Siemon, Chris B. Wood and Catherine A. Offord)









Photos taken by Paul Scannell and Robert Flemming

Giant Gija Jumulu goes travelling through WA

Patrick Courtney

Gija Jumulu is the name of the giant boab that the Gija people of the East Kimberley gifted to the people of Western Australia and visitors to Kings Park and Botanic Garden.

Due to the realignment of the WA Great Northern Highway, a large boab tree located in a flood plain at Telegraph Creek was destined for removal. Between March and July 2008, a community-based initiative was planned to save this ancient tree. The work culminated on the 19 and 20th of July as the Gija Jumulu was successfully planted at Kings Park, over 3200km from where it originally sprouted almost 750 years ago.

The journey is the longest land journey of a tree of this size. The project, beyond all expectations, received wide local, national and international media coverage with the tree even entering popular culture such as political cartoons and morning radio. This "boab phenomenon" also occurred on the journey down as people on the road and whole towns stopped to look, wave and photograph the 36-tonne boab tree making its way through the vast Western Australian outback into metropolitan Perth.

The first stage of the project was to determine its feasibility via a detailed logistics and project plan and by canvassing a range of individuals and organisations for support. Support for the project was phenomenal with people taking a positive position from the start.

By June 16 the project had received approval to proceed from the main funding partners and so we met with the traditional owners to seek their support for the gift. Shirley Purdie met with us and took the idea to the community. Shirley and her father Sandy Thomas, who spoke for that country, both agreed that it was worthy of support and so the gift was made.

Work on the new bridge could not be delayed and only one day had been approved for the tree to enter the metropolitan area, and so with the final go-ahead we had just 10 frantic days in which to conduct the work.

Normally when collecting plants for Kings Park we take small plastic bags and wet newspaper. In this case we had a 75-tonne truck, 100-tonne crane, 30-tonne excavator, two bulldozers, an elevated work platform, rollers, and water trucks!





Once on site we set out to confirm the underground extent of the tree as this had been the main unknown factor in our planning. We discovered that the soil level had been artificially raised around the base of the trunk by up to 1.5 m due sand-mining and other activities at Telegraph Creek. In addition, we discovered a massive root ball below the surface which had compounded itself into decomposing granite subsoil.

This tree did not want to come easily, and by day 3 we were still having difficulty removing the tree from the site. Two things were clear: I) that tree weight (due to the root ball) was far heavier than our 10-20 tonne estimate; and 2) that there may be a number of unexposed roots still anchored to the ground.

By the end of the day, and after some fast thinking by the team, we had built a hard pad next to the tree to allow a closer crane setup and the ability to lift more weight, freed the remaining anchored roots, successfully lifted the tree (37 tonnes), located new transport (appropriate for the weight), and had the project back on schedule with the tree ready to move the following day.

With the tree successfully lifted and packed onto the 75-tonne trailer, Shirley Purdie and another five elders performed a smoking ceremony to allow the tree to leave the Kimberley for a safe journey to Perth - a great way to end our time at Turkey Creek.

On the road we soon discovered that the Boab story had spread. People waved and photographed the scene as they stopped to allow the convoy, which was wider than the two lanes, to pass by.

This phenomenon followed us all the way, and at towns like Halls Creek, Fitzroy Crossing, Cue, Meekatharra and Morawa every resident seemed to want to see the tree pass through.

Finally in Perth our convoy followed a complicated route through the metropolitan area, which involved a pre-approved series of roads and many power line lifts. Pre-planned works including tree pruning and the removal of road/bus signs and traffic signals, made the journey through the city much easier.

The procession, involving the 75-tonne rated truck, two police escorts, three pilot vehicles, power line lifters, various media vehicles, and several helicopters, finally arrived in Kings Park and Botanic Garden to a great reception from over 1000 people.

The following day the Gija Jumulu was successfully transplanted at the Two Rivers Lookout, and a welcoming and smoking ceremony was performed by local Nyoongar people to receive the gift from the Giga people and to commemorate the day.









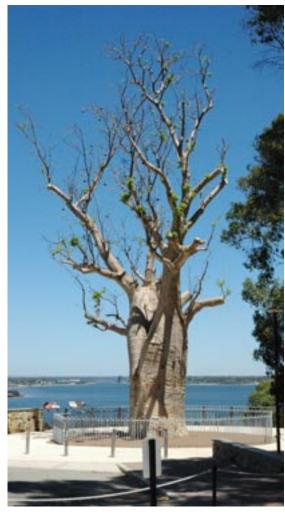


Six months on and the Gija Jumulu has shown the first signs of new life, as small green shoot tips started to form in December 2008. By early January new shoots had burst forth, and by mid February the whole canopy was shooting. Most importantly the ancient roots, which had developed in the East Kimberley for over 700 years, were now also forming new growth.

These important signs of life indicate that the tree stabilized after its dramatic upheaval and is acclimatising to its new environment. Recent root examinations have also revealed that cut root surfaces are healing, with important callusing starting to take effect.

Finally the story of the Gija Jumulu comes full circle as 200 seedlings from the boab, successfully grown by Kings Park and Botanic Garden staff, journeyed back to the East Kimberly and were planted at the Warnum Community and Telegraph Creek. The highly successful planting day was a joint effort with the Warmun Community and one of our major project partners, Team Savannah.

Kings Park and Botanic Garden staff continue to monitor the progress of the tree and provide the very best in cultural care. At this point the Gija Jumulu has responded remarkably to the conditions in Perth and these new signs of life will hopefully signify its long-term success.



Photos taken by:
P. Courtney, J Thomas,
G Messina and J Shaw

BOOK REVIEW

'The Flower Hunter - The Remarkable Life of Ellis Rowan'

by Christine & Michael Morton-Evans Simon & Schuster Australia Virginia Berger

Christine and Michael Morton-Evans admit to having faced an uphill task in writing the story of flower painter and flower hunter, Ellis Rowan. She left behind almost no personal correspondence or diaries and Ellis' family destroyed all but the most eulogistic details of her life. In spite of this, however, the amount of information the authors have managed to collect is considerable.

Ellis Ryan was born in Melbourne in 1848, the first child of parents recently arrived from England and Ireland. The young nation to which these young British immigrants came seemed a strange place indeed and the early colonists set about re-creating 'home' in the young colony, planting English trees and attempting to introduce English birds, flowers and shrubs. In time, however, the uniqueness of Australian flora and fauna gathered by curious explorers and scientists received attention, many examples being recorded in the only way known at the time – by drawing, sketching and painting.

The Victorian era was renowned for being a male-dominated society, and whilst it was acceptable for a lady of the time to dabble in flower painting as a hobby, botanical art was mainly the domain of men. After all, it would not be seemly for a woman to draw the sexual parts of plants! In keeping with the philosophy of the times, Ellis had an 'ornamental education' which concentrated on non-academic pastimes such as sewing, dancing and drawing – pre-requisites for marriage. Ellis, however, dreamed of travel to faraway places.

In 1872, Ellis' father bought 26 acres of land on top of Mount Macedon, north-west of Melbourne. Deeply interested in natural history and horticulture, Charles Ryan determined to establish one of Australia's great gardens and engaged two men to help with the design – William Guilfoyle, a renowned landscape gardener and director of the Royal Botanic Gardens in Melbourne, and Baron Ferdinand von Mueller, the Victorian Government Botanist. Ellis spent many hours with her father and these men, helping in the planning and development of the garden. She must have learnt a great deal from them both. Von Mueller was so impressed with Ellis' talent as an artist that he offered to send her to Germany to study botanical illustration. Strangely, she turned this remarkable offer down, probably because she wanted to develop her own style rather than be influenced by the systematic study of botany.

In Melbourne in 1873 Ellis married Frederic Rowan, a British army officer then serving in New Zealand. After a couple of years in New Zealand, Captain Rowan resigned his commission and moved Ellis and their young son back to Melbourne. Travelling with her husband around the Australian countryside, Ellis painted the flowers of each area. On a trip to Western Australia, she met the English botanical artist Marianne North whose ambition was to create a collection of paintings depicting the entire world's wildflowers. This meeting proved to be a turning point in Ellis' life. Greatly influenced by such a noble ambition, Ellis determined to paint a complete collection of Australia's wildflowers.

Often leaving her family for months at a time, Ellis journeyed to many remote parts of Australia and New Guinea in her search for rare and exotic flora. She was an accomplished writer and had a sophisticated understanding of how to use the media of the day, recounting her travels in the popular press and in several books. Often accused of exaggeration and embellishment, she worked tirelessly to publicise her exploits. She was very ahead of her time in this regard.

After the death of her husband in 1892 Ellis travelled profusely around Australia and overseas. In 1916 a plan to visit New Guinea came to fruition, the Royal Worcester Porcelain Company commissioning her to paint a series of the exotic Birds of Paradise for use on their china. Her foray into the tropical jungles in search of all 72 known species of the Bird of Paradise was undertaken alone – and at the age of nearly 70. Although there specifically to paint birds, Ellis could not resist painting the exotic flowers she found. With Royal Worcester in mind, she painted the flowers on thin cardboard in a circle exactly the size of a dinner plate. These paintings now reside in the herbarium library at Kew.

Ellis Rowan died in 1922 at the age of 74, leaving a prodigious body of work. In a career spanning fifty years, she produced over 3,000 paintings. As the authors state, "She had aspired to make a collection of the flora of Australia for all Australians, that they might know and appreciate the beauty of their heritage. Her whole life had been an adventure in pursuit of that beauty."

The final chapter of the book charts the controversy over the future of the Rowan Collection. It is amusing to note that Norman Lindsay, that painter of lewd and nude big-breasted, lascivious women said "he could not see the necessity for the government to buy a large collection of what was, after all, vulgar art"! The government finally bought the collection which eventually ended up in the National Library in Canberra. Several years ago the National Library exhibited 100 of the 970 paintings they hold. It was a breathtaking exhibition, attracting large crowds. It is to be hoped that Ellis Rowan is finally receiving the recognition she so richly deserves.

A sobering epilogue by the authors remarking on the rapid extinction of native vegetation, flowers, trees, birds, marsupials and mammals since European settlement in Australia, brings to an end a well-researched and fascinating account of a remarkable woman. It would be of great interest to those interested in botanical art, plant collecting or tales of an intrepid traveller.

ITEMS OF INTEREST

ACT Plant Census Updated

Brendan Lepschi, Herbarium Curator, Centre for Plant Biodiversity, Canberra

Version 2.0 of the Census of the Vascular Plants, Hornworts and Liverworts of the ACT has recently been uploaded at http://www.anbg.gov.au/cpbr/ACT-census/index.html

The Census lists the scientific names of the native and naturalised vascular plants, hornworts and liverworts known to occur in the Australian Capital Territory (but excluding the Australian Commonwealth Territory of Jervis Bay on the New South Wales south coast). All records are based on herbarium specimens housed in the Australian National Herbarium (CANB).

This version of the Census updates version I.0 (24 October 2007), including newly recorded taxa, nomenclatural and taxonomic changes and data on some of the previously unrepresented cryptogamic flora. Future versions of the Census will provide complete coverage of all remaining cryptogamic groups including mosses, lichens, algae, fungi and slime moulds.

As with all censuses, this is a work in progress, and changes to the taxa listed can be expected as new collections and data become available. The census compilers welcome any feedback – please contact us at cpbr-info@anbg.gov.au if you have any comments or corrections.

Australian Network for Plant Conservation - 2nd National Forum - 'Minding our own biodiversity: conservation on private land'

Thursday 30 April - Friday I May 2009, Halls Gap, The Grampians, Victoria

Don't miss this timely forum! Register NOW! - Registrations close Friday 17 April

Our second national forum will focus on conservation outside the formal reserve system, whether on small blocks, production properties, large landscape level efforts or cross-tenure projects. It will highlight the people and places involved and investigate the incentives and support available.

The forum will include presentations, case studies, facilitated discussion sessions and field visits to project sites. Many landholder presenters will give us the benefit of their on-ground experience.

Further information, program, registration:

http://www.anpc.asn.au/conferences.html or contact the ANPC office on 02-6250 9509.

Keep an eye on the website for program updates (there are some gaps in the draft program as many of our Victorian colleagues are currently deployed with bushfire responsibilities).

Private land is the key to linking biodiversity conservation across the landscape

Australasian Conference Of Voluntary Guides In Botanic Gardens Monday 9 - Friday 13 November 2009 at the Royal Tasmanian Botanical Gardens

Please direct all queries to Don Dabner, 98 Doyle Avenue, Lenah Valley 7008, Ph: 03-6228 5624, email dondabner@iinet.net.au