Editorial Committee:
Dr Philip Moors  Director and Chief Executive, Royal Botanic Gardens
Melbourne and BGANZ President
Dr Tim Entwisle  Executive Director, Botanic Gardens Trust, Sydney
Mr Mark Fountain  Manager, Botanical & Public Programs, Royal Tasmanian Botanic Gardens and BGANZ Council Member
Ms Helen Paulsen  Manager Parks and Environment, Mackay Regional Council and BGANZ Vice President

Managing Editor:  Virginia Berger
Graphic Designer:  Kerryn Gourlay

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Farewell and welcome!
After eight years with BGANZ I am moving out to pasture – not necessarily greener pastures, because I have very much enjoyed my time with BGANZ. I have just recently received my Seniors card, and the urge to use it is so great that I am planning some long overdue travel in the next period of my life. Botanic Gardens will always be included on my destination list, so I may well see some of you in the future.

I have greatly enjoyed being part of the fledgling BGANZ. There are strong signs that the organisation is really starting to take off with regional groups taking a lead in promoting well attended and very successful meetings. The potential for growth is enormous and BGANZ is becoming a strong advocate for Australian and New Zealand botanic gardens and a leading national contributor to matters relating to climate change.

Undoubtedly the nicest part of my job has been the contacts I have made. Without exception I have found people connected with these precious community assets to be very pleasant – probably because they are genuinely interested in and dedicated to the jobs they do and are happy and fulfilled in their chosen careers.

I would like to thank members of the BGANZ Council and CHABG members, from whom I have learnt a great deal and whose support I have greatly valued. I would especially like to thank BGANZ President, Philip Moors. His kindness, courtesy, thoughtfulness and intelligent and wise council have at all times been very greatly appreciated.

BGANZ welcomes Brigitta Wimmer who will be taking over the role of Executive Officer from the end of November. Brigitta has recently retired from the Department of Environment, Water, Heritage & the Arts where the emphasis of her work was on endangered species and ecological communities.

Virginia Berger
Executive Officer

NOTE FOR THE DIARY
The next BGANZ Biennial Congress will be hosted by the Mackay Regional Botanic Gardens, Queensland from
Further details will be in the next (March) issue of The Botanic Garden.
ITEMS OF INTEREST
Network of Regional Botanic Gardens Conference
Gold Coast – 16-19 July 2008

Botanic Gardens managers and horticultural staff from across Queensland joined together for three days in July. CHABG representatives held their Annual General Meeting concurrently and joined with conference attendees for two landmark celebrations at the close of the event.

The conference focussed on sharing experiences and challenges in developing and managing regional gardens across Queensland. The diversity of Queensland’s Regional Botanic Gardens was emphasised, with representatives from major provincial and tourist cities as well as more remote gardens from western areas.

The Gold Coast Regional Botanic Gardens co-hosted the conference with the Network, and was supported by their Friends group who were key organisers along with the botanic gardens staff and Gold Coast Parks and Recreational Services Marketing Officer Alison Ballard. Alison was the lynchpin of the event, guided and assisted by conference convenor Lawrie Smith OAM.

The event began with a tour of Redlands Indigi-scapes, where conference early birds were treated to a walk through a garden that succeeds in articulating their message of gardening with locally endemic species. Next stop was the Australian Centre for Lifestyle Horticulture (ACLH) at Brisbane’s bayside Cleveland, where a tour of research works lent additional credence to the shared view that industry research and botanic gardens are great allies.

The conference was held at the Radisson Palm Meadows Resort where most delegates stayed, providing extra opportunities for great networking over informal drinks and meals. Presenters from regional botanic gardens provided valuable insights into their own gardens, with great images supporting their descriptions. Especially confronting were the tales from Emerald, Cairns and Mackay, all of whom were greatly affected by flooding. Both the impact and the recovery projects were equally phenomenal.
The Queensland Herbarium encouraged Regional Botanic Gardens to continue or begin their own herbariums while data bases from three botanic gardens were described and compared, Delegates agreed each had its merits depending on individual situations. (especially funds!) Gary Crilley from University of South Australia gave an invaluable overview of Visitor Management Research, while Shane Holborn from ACLH expanded on opportunities for joint research touched on during the earlier tour their facility. A number of discussion panels considered topics from Community Education, to Friends and Volunteers opportunities as well as staff secondments and training. Liz Smith, conference sponsor and advocate for professional training for gardens staff outlined vocational training opportunities and later committed to assist with funds for the development of project material to support the Regional Network. There was a full programme and many opportunities to learn from other gardens. This was especially relevant to the Gold Coast hosts who are establishing new gardens.

The Network AGM considered and unanimously agreed to make the move to become the Queensland chapter of BGANZ. Collaboration on a website and a tourist trail for Botanic Gardens was discussed and endorsed by all members.

A Gala Dinner was held at the Radisson to jointly celebrate the conference and the 10th Birthday of the Gold Coast Friends. A great night to close an informative and constructive conference. One last event was held at the Gold Coast Regional Botanic gardens where delegates from the conference, CHABG representatives, industry, council officers, Friends and supporters joined for a morning tea and tour of the gardens. Queensland Department of Primary Industries General Manager John Chapman was a special guest and his opening speech reiterated the importance of building relationships between Botanic Gardens and industry.

The grand finale was the planting of a Curator’s Avenue of endemic endangered trees, with John Chapman, Gold Coast Mayor Ron Clarke, CHABG Curators and CEO’s.

Kate Heffernan Senior Project Officer/Curator
10th BIRTHDAY for Gold Coast Regional Botanic Gardens

If the first five years of lobbying support are counted (as they should be) the Gold Coast began it’s most recent journey towards a Regional Botanic Gardens with the incorporation of the Friends a decade ago. Previous attempts failed either because of council mergers, changes in agenda for council staff or simply lack of general support. But when a group like the Gold Coast Friends formed in August 1998 there was every likelihood that the Gold Coast was finally headed in the right direction.

Ten years on there are indicators that the gardens development is definitely progressing in the right direction. The primary objective of the botanic collection is a representation of local species in a garden-like setting. The first plants went into an area known as the Mangroves to Mountains Transect in July 2003, planted by the community under the supervision and co ordination of the Friends. Now the initial stages of an extensive pathway network meander through the Mangroves to Mountains Transect, and the first interpretive signage has been installed. Extensions to the pathways are planned for early next year, providing additional interpretive opportunities. Local artist and garden designer Nick Walford-Smith is working on some special children’s discovery interpretation and an education consultant is basing the development of curriculum based education activities on the Mangroves to Mountains collection.

Development of the gardens is a Gold Coast City Council (GCCC) project, and ratepayers pay a small levy attached to their bi annual rates. Gardens staff includes a Senior Project Officer/Curator whose role is to manage the development of infrastructure, progress the educational and scientific elements, raise awareness with the community and council officials, expand the botanic collection, advance the interpretative elements and co ordinate volunteers and community events and activities. Maintenance is provided by GCCC internal maintenance staff, with two full time staff and up to 3 additional casuals. The Senior Horticulturist is Patrick Whitely whose commitment and previous experience in public and resort gardens resulted in overall improvements to the quality of the collections. The Horticulture Display Gardens were the first council botanic gardens initiative, and this area shows off some the wealth of ornamental plants that are compatible with the Gold Coast climate. Extensive boardwalks were installed almost simultaneously with the display gardens, and a lake side promenade wanders though exotic and native garden beds.
Recently two major structural plantings were commenced with valuable support and guidance from Master Planner Lawrie Smith OAM. A closed forest gorge representing local rainforest communities was planted in July and a corridor of gum trees was planted with the community on National Tree Day in August. The corridor is a zoned collection of over 450 Eucalypts, Corymbias and Angophera’s from local plant communities.

The community planting days are always attended by around one hundred volunteers and the most recent planting of a small pocket of montane vegetation co-incided with a public event for Rare and Threatened Species Day, where over a thousand visitors joined in activities. Events help to advance public perception of the gardens, with the most recent celebrations for Arbor Day and Gardens Alive. Arbor Day was celebrated with local school children, Councillors and the Gold Coast Mayor who planted a commemorative grove of Lilly Pillies, while Gardens Alive attracted thousands of visitors to a festival of gardening. As always none of these activities would occur without the support of Friends.

There are new projects around the corner, some waiting on additional funding and others on infrastructure programming within council. A design for the remediation of the lagoons includes permanent and ephemeral wetlands, with shelters, boardwalks and trails as well as interpretation throughout. The Children’s Garden is planned as a stimulating natural environment for children, and the wonderful design is being readied for tender with specifications for construction and artwork components.

While the gardens are definitely in their infancy and much work needs to be done to make them fully compliant with all the philosophies and roles of Botanic Gardens, the persistence of staff and the Friends will see the project continue to prosper.

Kate Heffernan Senior Project Officer/Curator

Welcome to Queensland Chapter of BGANZ

At the Regional Botanic Gardens Conference (reported on above) a General Meeting of the Network elected to join BGANZ as the Queensland Chapter, joining New South Wales and Victoria as State Chapters of the organisation.
International Garden Photographer of the Year
This is a great opportunity for garden photographers of Australia and New Zealand!

Deadline for entries: 31 January 2009

The world’s premier international competition for garden and plant photographers is open to all, from anywhere in the world. The seven categories for this year’s competition are:

- Wildlife in the Garden
- Plant Portraits
- Garden Views
- People in the Garden
- The Edible Garden
- Trees
- World Botanic Gardens

Botanic Gardens Conservation International (BGCI) is currently promoting the ‘World Botanic Gardens’ category, which aims to capture the essence of a botanic garden. In return IGPOTY is offering BGCI the proceeds raised from this competition category. The Botanic Garden featured in the winning image from the ‘World Botanic Gardens’ category will also receive great global public awareness through IGPOTY. The competition awards showcase the best garden photographers across the world to an international audience.

There is also an award for the Young Garden Photographer of the Year for budding photographers under 16 years old.

Over 100 of the winning photographs will be displayed in a unique outdoor exhibition at Royal Botanic Gardens, Kew, London. Over £20,000 in cash and other prizes is on offer. Photographers can enter any number of single images in any category or any number of themed portfolios of six photographs.
A judging panel of world renowned experts in photography, garden design, horticulture and the media will select over 100 of the top photographs to appear in a beautifully illustrated, hardback book of the competition as well as in an outdoor exhibition at Royal Botanic Gardens, Kew, next year celebrating its 250th Anniversary. The winners will be announced in May 2009 at the launch of the exhibition. The exhibition will be held from May to September 2009.

For more information and to find out how to enter: www.igpoty.com.

ARTICLES

ONE KEY MESSAGE SOME BOTANIC GARDEN VISITORS DON’T YET GET

Most botanic gardens communications include reference to establishing and promoting conservation of the natural and cultural environments. BGANZ also has as one of its’ six aims; advocating plant conservation and fostering the plant sciences and social and cultural heritage programs.

This report provides a research note from the first standardised survey of visitors to botanic gardens in six Australian capital cities. It identifies the level of awareness by visitors of this major role of the gardens and identifies significant differences between those self-identified as aware compared to those unaware.

Local staff and volunteers were trained as survey administrators for each garden. They approached 3,951 visitors to participate in the survey with 1,892 visitors agreeing to participate (a very commendable response rate of 49%). In one section, respondents were asked the following questions:

1. **What do you think is the main purpose or role of these gardens?**
   Provision existed for an open-ended written response.

2. **Did you know that education and interpretation concerning plant conservation is a role of the gardens?**
   Response options included tick a box, No, Yes, or Unsure.
   If the respondent ticked the box Yes, they were asked to answer the next question.

3. **From your visit today, can you nominate any evidence of this role in the gardens?**
   Space was provided on the questionnaire for an open-ended written response.
Data was analysed through descriptive and multivariate procedures using SPSS 13.0. There were minimal missing data and when necessary, responses were deleted list-wise from the analysis.

Visitors reporting to be unaware of education and interpretation as a role of the gardens made up 23% of respondents and 77% claimed they knew of the role, and were able to provide meaningful ‘evidence’, visitors ‘aware’ recording larger means for the importance of each of the education service quality attributes of Showcase a wide diversity of plants, Display special collections of plants, Have individual plants adequately labelled, Accurate current information, Have signs that are informative, Provide interactive opportunities, and Provide opportunities to learn about plants.

A second test was conducted to compare the scores of the aware and unaware visitors on visit outcome questions that represent intended future behaviour. These were Intention to revisit, Would you recommend the garden? and Were your desired benefits attained? - aware visitors recording larger means than the unaware for each of these questions.

So can we try to identify the unaware people in efforts to target the message? Significant differences existed with respondents attending with family, those on a family outing as the first activity, visitors aged 20-29, visitors with secondary education, international visitors, and first time visitors providing substantive accounts for higher levels of unawareness. Members of these segments are the most likely to gain from revised communication strategies to detail conservation as a role of the gardens.

More details on the study and papers on related topics are available from gary.crilley@unisa.edu.au
Gary Crilley
Director
Centre for Tourism and Leisure Management
School of Management
University of South Australia, Mawson Lakes Campus, SA

Bragging rights for a gardener

Paul Scannell relates the story of a not-to-be-forgotten experience.
Thanks to Bob Makinson, of the Centre for Plant Conservation in Sydney, who sent an e-mail request about a year and a half ago, I got invited to a lunch. A pretty special lunch at that.

Dr Jane Goodall was preparing a new book called “Hope for Nature” and was asking for e-mail submissions from passionate people involved in plant conservation, to be considered for the book. Bob sent the e-mail request around and I thought it would be worth submitting an article.

I sent a piece about our work with our Crimson Spider Orchid and it was accepted. Dr Goodall and I chatted by e-mail and phone about the orchid and also about the passing of our mothers through Parkinson’s and Alzheimer’s and what great women they both were. During her current Australian tour, I
received a personal invitation from her assistant to join her for lunch at Govt House. I expected 40 or 50 guests, thinking everyone who submitted a piece for the book would be there and thought I may get to chat with Dr Goodall for a couple of minutes.

To my total surprise my car was the only one in the car park and I was ushered into the waiting room by the Governor’s Aide. Dr Goodall entered the room a short time later and introduced herself and we went to lunch.

I got to spend an hour and a half with Dr. Jane Goodall over lunch, at a table for two in the bay window of the Government House dining room in Melbourne and then some photos in the garden.

What a great woman!!! She loved the pictures of my mum Betty and my boys Jimmy and Mick and my new partner Leah and our tribe. Enthralled with our Crimson Spider Orchid.

We talked about her tour, simple pleasures, world poverty, future conservation actions and her new book, which will have a section on our Crimson Spider Orchid.

What a hectic tour schedule she has! Off to NZ and then England, then 6 weeks to finalise the book and then a tour of Asia getting back home on the 23rd of December.

Got to talk about opportunities for our special friend Alexander from India (who is sponsored by our Friends Group for his conservation work in the Tamilnadu area) and also for our Wiradjuri community through her Jane Goodall Institute foundation.

Amazing woman. Amazing afternoon. Butler, silver service lunch, didn’t have to do the dishes even.................

Pinched myself all the way home. I love my job........

Thanks for the e-mail Bob.

Paul Scannell
Curator
Albury Botanic Gardens
FEATURE GARDENS

Being the “Christmas Issue” of The Botanic Garden, two Botanic Gardens are featured for your holiday reading – one a cool-climate garden with mild summer temperatures, one in a wet tropical area with distinct wet and dry seasons - two very beautiful Botanic Gardens to be added to any future visiting plans.

Mount Tomah Botanic Garden is situated in Darug Country and is the cool-climate garden of the Botanic Gardens Trust. It covers 253 hectares on the summit of a basalt-capped peak, 1000 metres above sea level in the world heritage listed Greater Blue Mountains. It is composed of a 28 hectare landscaped garden whose theme emphasises cool-climate plants from around the world, especially those from the southern hemisphere, and about 220 hectares of high value conservation land. With a modern visitor centre situated at the summit of the landscaped garden the visitor can enjoy panoramic views across the sandstone flora of the conservation area to the Wollemi Wilderness. They can also enjoy a meal in the licensed restaurant, and then take a leisurely stroll through the landscaped displays. The Mount Tomah garden is one of the few botanic gardens where plants have been grouped according to their geographical origin. This allows the visitor to see both the similarities and differences between the plants of each region, and thus to learn something of the evolution of the floras of the different continents. Blessed with a cool, fertile and peaceful environment and mild summer temperatures (January average max. 24°C), Mount Tomah was the ideal place to display plants from the cooler regions of the world for the Royal Botanic Gardens, Sydney. The top 100 metres of Mount Tomah consists of a layer of basalt, a volcanic rock which weathers to form a rich acid clay loam that is more fertile than most Australian soils. Basalt has many fine vertical cracks, called columnar jointing, which form when the rock cools. These joints trap rainwater, forming a natural underground reservoir which provides a water supply for the Garden.

History

In 1968 the Brunet family offered the original 33 hectares as a gift to the NSW Government to become the cool climate annexe for the Royal Botanic Gardens Sydney. At first the property was managed as a closed annexe for cultivation of plants not able to grown in Sydney. In 1984 bicentennial funding was provided to open the garden to the public. Over the next three years the landscaped garden was designed and constructed. Facilities developed included the Visitor Centre and the major landscaped element including a 2 hectare rock garden, formal gardens and major water features.
Landscape Architect Geoffrey Britton designed the main features and they were constructed by botanic gardens staff along with specialist contractors. Work included over 3 km of dry stone basalt retaining walls, the 2 hectare rock garden, water features and cascades.

Retained in the new garden were the early plantings by the Brunets including redwoods (*Sequoia sempervirens* and *Sequoiadendron giganteum*) 5 hectares of wet sclerophyll forest comprising coachwood (*Ceratopetalum apetalum*) sassafras (*Doryphora sassafrass*) and brown barrel eucalypts (*Eucalyptus fastigata*). Providing a strong backdrop for the new garden are the heritage cherry laurel hedges (*Prunus laurocerasus*) which divided the landscape into rooms leading the visitor through the geographic displays set against the glimpses and panoramas of the surrounding world heritage area.

This Bicentennial Project was opened on 1 November 1987 by the Premier of NSW and the Federal Minister representing the Prime Minister of Australia. Since opening nearly 2 million people have visited the garden.

**What’s the garden about?**

Designed to inspire the appreciation and conservation of plants, over 5,000 taxa are displayed. Divided into separate but complimentary spaces the landscape provides discrete rooms with the spaces delineated by hedges. Each room has a defined theme and these are set out in the Mount Tomah Botanic Garden Thematic Plan. Our thematic plan provides the reason that a particular plant species is displayed.

For example the Proteaceae Garden displays the majority of genera that comprise this southern hemisphere plant family. Trust Scientist, Dr Peter Weston has been studying the evolutionary history of the family and the plants displayed in this collection have been used for his work. Living material is best for the DNA sequencing. The garden has 36 genera in the display with a total of 214 different taxa to seen.

Favourite specimens of the family for the visitors are the NSW state emblem *Telopea speciosissima*, the hybrid cultivar *Telopea ‘Shady Lady’* which this year had over 600 blooms. Also featured is *Protea amplexicaulis* which has flowers close to the ground and has the scent of old smelly socks. Thought to be pollinated by rodents these species differ from the nectar bearing *Telopea* pollinated by birds. The cup shape flowers with shortened bracts carried close to the ground provides easy access to foraging non flying mammals.

Other genera of this diverse family featured at Mount Tomah include *Persoonia*, *Faurea* from Africa, *Toronia* from New Zealand, *Orites* from Ecuador, and the Australian *Grevillia*, *Persoonia* and *Stenocarpus*.

The Woodlands of the world themes especially focus on the unique characteristics of those of the Southern Hemisphere, provide about 1/3rd of the displays at Mount Tomah. With African, Australian, New Zealand, Fuegian, and
New Caledonian displays, many unusual and beautiful tree specimens are featured. To contrast with these North American and Eurasian woodlands focus on deciduous and coniferous plant species and provide to the visitor the opportunity to compare the differences between these ecosystems and specimens. The blazing colour of *Acer saccharum* contrasts with flowers of the Fynbos woodlands of southern Africa the evergreen woodlands of Fuegian South America and New Zealand.

The 2 hectare Rock Garden displays plants of the rocky and alpine habitats of the world. This is also geographically organised with South and North American, African, Australian, Eurasian, and New Zealand sections. On a steep north facing slope the rock garden is divided by a major water feature with 100m cascades and ponds. The eastern side features the southern hemisphere region while the western side of the cascade system features displays of the North America and Eurasia. Species which attract major interest every year are with 2m high flower spikes covered with iridescent blue flowers this member of pineapple family from the Andes of Chile is a major attraction.

The Gondwana garden on southwestern side of the garden features species which tells the story of continental drift and the plate tectonic mechanism. There is a wealth of evidence that South America, Africa, Antarctica, Australia, New Guinea, New Zealand, and even India, were joined together about 200 million years ago in the ancient ‘supercontinent’ of Gondwana. Evidence includes the occurrence of similar geological features, similar fossils and some similar modern-day plants and animals, on these landmasses. Many plant groups that now dominate southern hemisphere floras, such as the families Proteaceae and Myrtaceae, had their origins in Gondwana. However, the different sections of these widespread groups have evolved in isolation since Gondwana began to break up (about 120 million years ago). Many modern members of these Gondwanan families are displayed in the plantings at Mount Tomah and displayed in this thematic display.

On the southern side of Mount Tomah is the Plant Explorers Walk. Here, many of the best known garden plants which originate from eastern Asia and were originally collected on expeditions by European plant hunters are displayed. The plant hunters explored some of the most remote and rugged regions brought and back such gems as the Himalayan blue poppy *Meconopsis betonicifolia*. 

**Acer Saccharum**

**Rock garden**

**Puya berteroniana**
On this walk you can discover something about the plant explorers’ travels, the plants they collected, and their fascinating stories. Featuring 13 different explorers, with portraits by renowned illustrator Marion Westmacott, the walks includes stories about Frank Kingdon-Ward, Lady Amherst, Père Delavay, and E H Wilson. This 200 meter long walk showcases herbaceous perennials and shrubs. Filled with rich scent in spring and summer and bright colour in Autumn, the walk is always popular for visitors.

**Being a sustainable botanic garden**

Surrounded by the world heritage listed National Parks places special responsibilities on the management of the Mount Tomah Botanic Garden. The plant collections are managed to ensure there is no potential for the exotic plants naturalising in the area. To do this all new taxa are assessed for the risk of becoming weeds and any with a high risk are not grown.

Since 1992 all green material has been processed on site with no green waste going to landfill. Each year over 600 m3 of compost are produced and spread on the gardens.

Water quality for the garden is regularly monitored and the garden is part of the NSW Stream Watch program. The results of water quality testing are placed on the web. To date the quality has been the same as for water in wild rivers in the National Park. The storm water system for the hard surfaces was far ahead of its time. Designed in 1984 the roads and paths all drain into the Gardens 15 megalitre dam. This is used to provide all the irrigation water for the nursery and garden displays.

Drinking water is also supplied on site. The Visitor Centre, Waratah Education Centre and the Works Depot have all used the rooves to collect rainwater for drinking. This is all stored in a number of tanks on site and before being supplied for drinking is sterilised with Ultra Violet light.

**For our Visitors**

The key to achieving our mission to inspire the appreciation and conservation of plants is attracting lots of visitors to the botanic garden. Stories and inspirational displays are of little value if no one sees them. Promoting the garden as a tourist destination is arranged by our Visitor Services and Marketing Section. Situated 50 Km from Katoomba with no public transport service, it is important to get information about our displays and facilities in front of potential customers.

Events linked to our mission is one major strategy we are using to achieve this. This year Mount Tomah has joined with Royal Tasmanian Botanical Garden, Kings Park and Botanic Garden and Mount Annan Botanic Garden to feature the “Hard Rain” Exhibition. This environmental photo essay was developed by the Cornwall Eden Centre and we all joined to fund a copy being made for display in Australian Botanic Gardens. The images set beside the words of the Bob Dylan song - Hard Rain documented the major environmental impacts of Global Warming on our environment and the people of the earth. It was hard hitting and confronting and the feedback from visitors was …" This is the type of message a botanic garden must show to inspire humankind to change our ways". rain display).
Other events have included an annual State Wide Waratah Bloom competition – which attracts entries from growers over the entire state and fills the Visitor Centre with hundreds of blooms for 2 weeks worth a visit every year in late September. At the same time the waratah and proteaceae displays are in full swing and make great links with the garden displays. Also developed for the Waratah festival is a children’s art competition usually getting over 200 entries. These are all displayed in the Visitor Centre.

Every February we host “Plants with Bite” a joint exhibition with NSW Carnivorous Plant Societies. Here again the Visitor Centre is filled a fantastic range of plants including rare *Nepenthes* spp., *Sarracenia* spp., *Darlingtonia*, and the rare *Cephalotus follicularis*. This event links well with Bog garden display in our Rock Garden. This new garden features plants of the threatened plants community the Blue Mountains Hanging Swamp. On show are local *Drosera* spp. as well as the rare *Acrophyllum austale*.

To use the changing seasons to attract Sydney Visitors an annual Autumn Harvest Festival is run. Linking Autumn with local produce of the Hawkesbury the Festival runs on a Saturday in early May each year. Attracting about 1500 people on the day, the visitor can purchase food, fruit and produce at the 28 or so stalls. With music and regional wine tasting, the Festival creates good links between conservation and local food production. With low food miles we are able to help push the message that local grown is best.

Also developed are promotions and information to local ethnic communities. With a mailing list to over 300 community ethnic newspapers, our visitor services staff supply regular stories which are often translated and printed in the non English media.

**Botanic Gardens – a place for Celebrations**

Continuing to build an ongoing family of supporters for botanic gardens is critical for our success. Mount Tomah is place of beauty and tranquillity, as well as housing internationally significant plant collections. By providing places and helping families to meet and celebrate we look to attract future supporters of botanic gardens.

To do this a number of areas have been developed specially for ceremonies. Now known as the Wedding Terrace a place with expansive views over Wollemi National Park and shaded by Nepalese Alder *Anus nepalensis* has become a very popular space for wedding ceremonies. The garden helps couples organise their special day here and has allowed ceremonies to arrive by horse and coach, Rolls Royce, and just on foot. These ceremonies form strong links with the couple and over the years they come back to celebrate.

Family reunion is another important celebration. The garden provides many places for picnicking and we also supply free BBQs. Sundays are a popular time for families to come for a day together in the Mountains and enjoy the fresh air.
Over the years a number of families have held a ceremony to scatter the ashes of a loved one here in the garden. The families all have agreed the botanic garden is place of celebration and enjoy knowing they can return to a place to celebrate the life of their loved one without having the space marked with plaques or headstones. With sensitive cooperation the botanic garden has become a treasured place for ceremonies and celebrations.

**Education: Inspiring the visitor**

Mount Tomah has been running school syllabus related programs for students for 20 years. The garden provides an ideal place for schools to experience an outdoor excursion and the Schools program delivers curriculum linked lessons in the botanic garden and conservation areas.

In 2008 our Waratah World Heritage Education Centre for schools was opened. Up to 100 Stage 4 (year 7) students can be seated inside. The Centre utilises the latest in technology and has many hands on exhibits. It has been constructed as a show case of sustainability with passive solar construction. It has subsoil geothermal heating and cooling. All water is collected with potable water from the roof and non potable water for garden watering.

The most popular lessons on offer include: Blue Mountains World Heritage Area – Our State & National Parks, Ecosystems Studies, Rainforest and woodlands, Geology and Geography, Mini-Worlds, Evolution of Australian Biota, Plant Adaptations and Classification, Maintaining a Balance – Plants and Australian Climate

The Centre also is used for botanic illustration classes and a program of hands on practical horticultural programs is being developed with the Friends of the Botanic Garden.

Developed for kids of all ages each term, a new Quest is created for each school holidays. Life like scientifically accurate props are painted and installed in the Garden. Whether it is native bees, Dinosaurs, or Wizards and Witches, the Quest has developed a loyal following. Families purchase a map and navigate around the garden to about 10 stops where they have to answer a question about the plant or plant related prop. On completion they return to visitor centre where they have a lucky dip and get a take home trophy.

To meet the needs of the more technologically savvy an audio tour using ipods has been developed. Called “Touching Time”, the audio tour links the listener to stories which can be listened to at 13 stops around the garden. Developed by Gregg Borschmann and Ian Brown of Elanus Word and Image the tour tells the story of the Wollemi Pine and the evolution of the Australian flora. Each stop is between 2 and 5 minutes and provides a new way of linking with the plant displays in the garden.

As well as being hired from the Visitor Centre, listeners can download the tracks for free from:

Summary

Linking visitors with plants and gardens is the continuing challenge for botanic gardens. At Mount Tomah the generous gift of the Brunet Family has developed over the last 20 years into a garden with a myriad of stories. It is an ongoing work and reflects the skills and enthusiasm of all the team who work here. It has been my pleasure and joy to be one of the team for over 16 years as the garden has matured.

Rob Smith
Assistant Director
Mount Tomah Botanic Garden.

Cairns Botanic Gardens

The Cairns Botanic Gardens are situated on 38 hectares up against the Mt Whitfield Range and Conservation Park in Edge Hill, Cairns. They feature a range of gardens from the exotic to the native.

In 1888 Eugene Fitzalan a botanical collector and gardener with a worldwide reputation moved to Cairns from Bowen. Eugene then negotiated an arrangement with the Cairns Town Council that allowed him to establish a small nursery and tea house near the present Flecker Gardens site. Eugene grew and sold native plants, orchids and fruit trees to local residents under the condition he open his gardens to the public, effectively establishing the site as the Cairns Botanic Gardens.

Over time the gardens underwent changes that reflected the society of that era. At one time there was a small zoo and bird aviary in the gardens for the enjoyment of visitors. In 1958 the North Queensland Naturalist Society began a campaign to declare the gardens a formal Botanic Gardens and in 1971 the Cairns City Council named the most developed section of the Botanic Reserves the "Flecker Botanic Gardens" in honour of their founder Dr. Hugo Flecker, a naturalist and surgeon who was interested in poisonous plants and animals. He also founded the Flecker Herbarium which is now part of the Queensland Herbarium and has several plants named after him as well as the infamous box jellyfish *Chironex fleckeri*. While the name Flecker Gardens remains, the precinct was named the "Cairns Botanic Gardens" which also included the nearby Tanks Art Centre.
The Flecker Gardens house the Administrative Centre and Bookshop as well as a Café that provides meals and snacks to visitors. It also houses a large display of exotic and native plants in formalised garden beds. Unlike traditional botanic gardens the garden beds are designed to mimic a tropical rainforest, with tall plants shading smaller plants and these in turn shading smaller plants, while beds of mulch build up the soil and reduce evaporation. This area also contains a stage garden that is a popular place for weddings, classic films under the stars during the dry season, the occasional jazz concert and formal functions. A small Orchid house is used to exhibit part of the large collection of flowering Orchid species while the Munro Martin Fernery houses a growing collection of Nepenthes and Aroids including Amorphophallus, Cyrtosperma, Dracontium as well as a collection of fern species.

The Aboriginal Plant Use Garden contains native rainforest plants that were useful to local rainforest aboriginals in their daily lives. A selection of food, medicinal and other useful plants are laid out in an easy to follow trail that can be followed by reading the individual signs or by self guided walk brochures and maps. This garden is of great interest to local and overseas visitors as well as visiting school students as they take advantage of the Gardens Education Programme.

“Australia's Gondwanan Inheritance Garden” was designed and built with an emphasis on the Gondwanan components of the plant kingdom and plants with a special conservation interest. It traces the evolution of plants from the first Stromatolites to the modern flowering plants. An interpretive shelter introduces visitors and students to the events that started in the ancient warm oceans and colonisation of the land, the break up of the super continent of Pangea into the continents we know today and the timelines involved. Around the garden is a set seven interpretive stations that explain the significant evolutionary events such as the age of the Ferns, the Age of the Gymnosperms and the age of the Angiosperms. Each station area is planted with both modern and ancient specimens of the plants referred to in the interpretive panels.

The Rainforest Boardwalk traverses a remnant section of Lowland Swamp Rainforest that was once common throughout the Cairns area. This section is kept in a natural state and the only major works carried out apart from removing invading non native plants, is the maintenance and clearing of the boardwalk. The 400 metre walk which journeys through two distinct ecotones created by increasing ground moisture begins near Flecker Gardens and passes from mixed palm and Rainforest dominated by Alexander Palms (*Archontophoenix alexandrae*) to Melaleuca-Pandan swamp forest dominated by Weeping Paperbark (*Melaleuca leucadendra*) and Swamp Pandan (*Pandanus solmslauabchi*), until it meets the freshwater lake and Saltwater creek a mangrove lined tidal creek.

Along the boardwalk visitors can see mature specimens of Lowland Rainforest trees such as the Leichhardt tree (*Nauclea orientalis*) the Queensland Fan Palm (*Licula ramsayi*), Blue Quandong (*Elaeocarpus grandis*), Beach Hibiscus (Hibiscus tiliaeus), Weeping Fig (*Ficus benjamina*), and Corky Bark (*Carallia brachiata*). Some other plants of interest include Scrub Breadfruit (*Pandanus monticola*), Potato Vine (*Faradaya splendida*), Hairy Fig (*Ficus hispida*) and a variety of Epiphytes and climbing plants. The boardwalk is very popular with tourists and locals and has often been described as a rainforest in the heart of the city.
Centenary Lakes

The centenary lakes were created as a joint project of Cairns City Council and the Federal Government to celebrate the 1975 Queensland Centenary. The Freshwater Lake was created when a shallow freshwater swamp was excavated and a small weir erected at the junction of a natural mangrove lined creek, while on the eastern side of the creek a tidal mangrove swamp was deepened and a flood gate installed to create a saltwater lake that is cyclically flushed and refilled on the high tide.

Freshwater Lake has been planted with both native and exotic waterlilies including the native Lotus lily *Nelumbo nucifera*. This is a shallow lake and it requires constant maintenance due to the high accumulation of nutrients and low oxygen levels. The lake also suffers from periodic blooms of algae and *Salvinia molesta*. Growing around the lake are a collection of palms including the water loving Palm *Nypa fruticans* and native trees. Freshwater lake and its surroundings are an important wetland for local and migrating waterbirds and is a popular destination for visiting and local birdwatchers. For families there is barbecue area, toilets and children’s playground making it a very pleasant place to visit, have a picnic or just relax.

The Saltwater Lake is dominated by the Grey Mangrove (*Avicennia marina*), and the brackish water is home to an active fish population. Near the lake are plantings of tropical fruit trees and edible plants from a range of wet tropical countries. They include the Durian (*Durio zibethinus*), Jack Fruit (*Artocarpus heterophyllus*), Pummelo (*Citrus grandis*), Lychee (*Lichi chinensis*), Jaboticaba (*Mycaria cauliflora*) and many others. Food plants include Sweet potato (*Ipomoea batatas*), and Aibika (*Abelmoschus manihit*) Taro (*Colocasia esculenta*) and spices such as Cinnamon (*Cinnamomum zeylanicum*) and Cardamon (*Elletaria cardamomum*).

Between the Lakes and the Flecker gardens is a good collection of clumping tropical bamboo species.
The MT Whitfield Conservation Park is jointly managed by Queensland Parks and Wildlife Service and Cairns Regional Council. It is a small range that reaches heights 365 metres above sea level and contains a mixed environment of Lowland Rainforest, eucalypt forest and open grassland. There are two walking tracks on the range, the Red Arrow walk, the short one takes around one hour or less to negotiate as it winds through lowland rainforest and grassed areas. There is a lookout at the top of the circuit that offers fine views of Cairns and the Coral Sea. The Blue arrow walk is a circuit that takes anywhere from two and a half hours to four and a half hours to traverse. This track passes through all the three major ecotones on the range and lookouts are stationed at all the peaks that offer good views of the surrounding landscape and Coral Sea. This walk is a strenuous one and walkers are advised to leave enough time to complete the circuit and to carry water and food with them.

Management issues include Fire Management and limited access to the steep terrain, regular revegetation projects are undertaken with gardens staff and volunteer groups. The pathway design and maintenance must address problems such as high rainfall during the wet season and a high level of public recreational use such as jogging and walking. The range itself is home to a healthy population of native fauna, it also is home to some feral pest that can be quite destructive such as wild pigs and cats. Domestic Dogs and cats also cause problems for wildlife when not properly contained or watched.

The Jack Barnes Mangrove Boardwalk is not located in the Botanic Gardens precinct but is located along nearby Airport Avenue approximately halfway between the Cook Highway and the Airport, it offers two walks through a mature Red mangrove forest that can reach heights of 20 metres. Along the boardwalk visitors can observe eleven of the twenty nine mangrove species found in Cairns and their associated epiphytes and ferns. As the tide rises and falls they can also observe a myriad of crustaceans, fish and birds adapted to life in this special place.
The Boardwalk was named in honour of Dr Jack Barnes a well known Marine Biologist who had a lifelong interest in Box Jelly Fish and the Mangrove environment. Originally a Bi-Centennial project it is now maintained and managed by the Cairns Botanic Gardens.

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Tanks Art Centre
The Tanks Arts Centre is a multiple use, art facility housed in three converted World War two navy oil storage tanks set amidst the lush Cairns Botanic Gardens. Its main functions, is to present a range of visual and audio exhibitions as well as offering a range of cultural arts, activities and events to the mixed community. As a unit of Cairns Regional Councils Cultural Services and Facilities section, it works to engage local communities in cultural expression and participation.

The Friends of the Botanic Gardens Cairns
This is a hardworking enthusiastic group of volunteers whose goals are
1. To stimulate interest and community awareness in the activities of the Cairns Botanic Gardens.
2. To raise funds for use in furthering the stated management aims of the Cairns Botanic Gardens.
3. Under the direction of Council representatives undertake such work as necessary to further the stated management aims of the Cairns Botanic Gardens.
4. To promote and support horticultural and botanical science in Cairns. They were established in 1999 and since then have raised money from various functions to help the gardens. Amongst some of the items contributed towards are rare plants, wrought Iron main gates and stone entry of the Flecker Gardens, the stone steps and the many Wrought Iron and timber park benches found around the gardens. They also contributed funds to construct the entertainment stage in the gardens.
The Friends conduct three annual plants sales to raise funds and run bi-monthly Saturday “Walk and Talk” sessions on Botanical topics. They also offer monthly evening guest speakers of horticultural interest. During the dry season they show Classical movies titled ‘Starry Night Cinema’ on the lawn at the stage area. Another presentation from the Friends is an Annual jazz night featuring local jazz artists. This is an event looked forward to by locals and their families who bring along their own picnics and blankets and enjoy Jazz under the Stars in the lush tropical surrounds of the Cairns Botanic Gardens.

**Services offered by the Botanic Gardens** include identification of plants and pests and wildlife, Self-guided walk, Palm and Heliconia brochures. The bookstore sells a range of plant and wildlife books as well conservation orientated postcards and gifts.

**Volunteers** give free guided walks of the Flecker Gardens in the morning and afternoon of every Tuesday and Thursday. A local bird expert gives free bird watching tours at 8.30am every Tuesday. All of these are always well attended and are very popular.

**The Schools Education programme** given by the Gardens Interpretive Officer and Biologist attracts more than 1000 students annually. Classes are designed to comply with the KLA’s of the Queensland Curriculum. Special walks and lectures are conducted in consultation with teachers and can be design to meet specific needs.

**The Collection** emphasises plants of the global wet tropics, especially the Zingiberales, Palmae, Araceae and Cycadales. The collection is the process of being entered into a new database which is based on a modified version of BG Recorder.

**Master Plan**
After a review of the whole Cairns Botanic Gardens precinct and the requirements and functions of both the Gardens and the Tanks Art Centre a long term master plan which will depend upon funding of $30 - $40 million was adopted by Council. Stage 1 is nearing completion after the realignment of Collins Avenue and the provision of parking areas and associated infrastructure. Now under consideration is the development of a visitor Centre that will combine the management and interpretive needs of both the Gardens and Tanks Art Centre. Future development will look at the relocation and enlargement of the nursery complex along with consideration of an Arboretum and Orchid House.

**Heritage Listing**
Both the Flecker Gardens and the Tanks Art Centre have been listed in the State Heritage register and a Conservation Management plan was developed as the basis of a heritage agreement between Cairns regional Councils and the State Government. The Conservation management plan allows for special exemptions within the agreement for the daily management and special upgrades of the gardens and tanks.

_Peter Shanahan_
*Interpretive Officer*
*Cairns Botanic Gardens*
PROFILES
Anne Duncan
Director, Australian National Botanic Gardens

The wind of fortune...

How does anyone get to be where they are? Accidents, impressions, memories, decisions on the run, at the right place at the right time. Maybe that gives away the fact that I did not start life with a burning ambition to end up Director of a botanic gardens...

I started professional life as a Forester. I studied Forestry at ANU because I thought trees were beautiful and that it would be pleasant to work with them. It was a last minute spur of the moment decision - it meant I had to move away from home and go to university in Canberra and that was the main attraction. I was sick of Sydney. The thought of catching the train to Sydney University everyday (my intent had been to study vet science) with the same people I had been to school with, as if nothing had changed, made me feel sick. I needed to get away.

Obviously the most important thing about studying at ANU is that it was across the road from the ANBG. I visited it regularly for study and pleasure. My first job was as a Forester, because the Forestry Commission Tasmania offered me a job (it was an accident - I wasn’t selective). My career in Forestry lasted 10 years though, and as a result, I have an abiding respect for the competence and professionalism of the forestry sector, something which sets me apart from my "greener" colleagues. After drifting through many different roles which fortuitously seemed to turn up every few years I ended up as Forestry Tasmania’s Conservation Planner. This wasn’t an accident - I actually made the case for the position to the Commissioners and they saw the future and put me in the job. Not long after achieving that though I found myself yearning for somewhere bigger, somewhere to tackle the environmental problems of the nation. So back to Canberra again to the Australian Nature Conservation Agency and the Endangered Species Program. After five years of having a family and learning the trials and tribulations of Canberra bureaucracy in between times (and not solving the environmental problems of the nation), Tasmania beckoned yet again – this time as an NRM Facilitator on Flinders island in the Bass Strait, where it was very windy. Flinders taught me the absolute delight of living in a small community of 700 people and the realities of regional Australia: “you can’t be green if you’re not in the black”.

Occasionally the wind on Flinders blows northerly, and it blew me down to Freycinet where I managed the public land in the middle third of the Tasmanian coast, including the spectacular Freycinet National Park. By this time I had really started to get the hang of land management - it’s not about managing the land, it’s about managing the people - but not only sewerage and rubbish, aspirations and dreams. It was living in small communities that made me start to appreciate the power of the people: that great things can be achieved with the will of a small group of people. I had an opportunity after another few years to take on managing a bigger challenge of people and communities when I
became regional manager for Parks and Wildlife in Hobart. When I heard that the ANBG was looking for a Director I had a memory of a lovely peaceful place which beckoned me …….and then I thought about all the people that go there and what an opportunity it was to tell them about conservation, and that was it - the southerlies blew me back again …..

Anne Duncan  
Director  
Australian National Botanic Gardens

Gary Fry  
Parks Manager, Alice Springs Desert Park

Moth, Cobweb, Mustardseed and Peaseblossom: appropriate names for the fairies cavorting in those delightful gardens in Melbourne as I sat purportedly watching Shakespeare’s A Midsummer Night’s Dream, though in fact I was contentedly watching Grey-headed Fruit-bats decamp for the evening. What a wonderful place was an inner city botanic garden! I had food and friends, wine and wildlife, all of which had come together to make me one contended man. Of course, as far as fruit-bats in gardens are concerned, not all have looked upon them as partially as did I that evening. But that was my thinking then, what with the folly of youth, and the folly of wine.

Had I thought about it that evening, perhaps I would have imagined that appointing a bloke trained in wildlife the director of a botanic garden would be akin to leaving Dracula in charge of the blood-bank: all that food, aka plants, just there for the munching, oh and what a variety of places to nest! Run free foliovore folk! Burrow well fossorial friends! As it turns out, of directors of botanic gardens I have met, very few seem to have trained in botany. It is not only Alice Springs Desert Park that has seen fit to let in that very distant cousin of those fruit-bats.

Many years later, I find myself, that bloke trained in wildlife, albeit with a distinct habitat focus, director of a botanic garden. But it is a curious botanic garden. It has all the requisite elements of a botanic garden. There is a herbarium next door, plants are propagated, two collection plans, Millennium Seed Bank staff, a team of very clever horticulturists, oh and plants!

But wait, there’s more! There are foliovores and fossorial animals! There are even some Chiropterans. What hand of fate is this? As I become a little more poliocephalus myself, some of that contentedness is with me still. And the wine still helps.

I don’t mean to sound self satisfied; not to an extreme level anyway. But the combination of garden and zoo, cultural centre and museum works. We tell our desert stories in our re-created habitats, stories told to all intents and purposes in situ. We tell ecological stories, and botanical stories, and ethno-botanical stories, and the list goes on. We take people on a journey. Most of the visitors to our gardens are on their own central Australian journey.
Some of them are seeking an experience that may even change their perspective on life; well, a little anyway. We use the garden, and the animals at the Desert Park, to illustrate our stories.

Me? I’m not a story teller. But I have the great fortune to work with some people who are masterful at taking people on a journey in our gardens, as those visitors better understand their place and role in Australia. And I sit outside in these Alice Springs evenings, sometimes hearing one of the seven species of insectivorous bat that live in our garden, and sometimes drinking wine.

Gary Fry
29/10/08

A very happy Christmas to all readers of The Botanic Garden and may 2009 be a happy, healthy, peaceful and successful year for all.