

# THE BOTANIC GARDEN

A Newsletter for the Botanic Gardens of Australia and New Zealand



Issue 13 - November 2005

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## EDITORIAL

### BGANZ LAUNCHED IN HOBART

At a Congress plenary session in Hobart on 30 October, BGANZ was officially launched as our membership association. The botanic gardens’ community on both sides of the Tasman now has an organisation to represent and advance its interests and to act as a focus for sharing experiences and knowledge. And most importantly of all, BGANZ now has its first members!

Considering that the first botanic garden in Australasia was established in Sydney in 1816 and that today there are over 170 public gardens,



Dr Philip Moors, inaugural BGANZ President, officially launching BGANZ in Hobart.

it's surprising that an organisation like BGANZ has taken so long to appear. We face many common challenges and opportunities and can learn so much from sharing successes and failures – but unless we have the forum in which to pool our experiences, the broad gardens' community will continue to be fragmented and uncoordinated. BGANZ has the goal of being that forum.

The inaugural BGANZ Council is enthusiastic about making things happen, and at its first meeting discussed a range of initiatives during the next 12-18 months. In addition to building membership, making this Newsletter even better and organising regular congresses (the next will be in New Zealand in 2007), we are working to establish a stand-alone BGANZ website (currently it's accessed via the Australian National Botanic Garden website), organise professional development workshops for members, strengthen links with regional botanic gardens networks, and investigate the feasibility of BGANZ assisting with capacity-building for botanic gardens in Asia and Oceania.

BGANZ Council has a strong regionally representative structure. Membership of the inaugural Council, elected or appointed by regional groups, is: David Sole and Bryan Gould (New Zealand), Helen Paulsen (QLD), Neil Bollinger (NSW), Annette Zealley (Vic), Mark Webb (WA), John Schutz (SA), Robin Nielsen (ACT), Jim Grant (NT), Mark Fountain (Tas), and Philip Moors (Council of Heads of Australian Botanic Gardens). Office-bearers elected by the Council are Philip Moors (President), Helen Paulsen (Vice-President Australia), David Sole (Vice-President New Zealand), and Robin Nielsen (Secretary/Treasurer).

We have plenty of ideas, but we also want to hear from members about your ideas and priorities. Please contact any of the Councillors or Virginia Berger in Canberra with your comments and ideas. BGANZ can only be what its membership wants – and at this stage Council particularly wants more members! Membership will bring a range of benefits, such as access to sections of the website containing job advertisements, information exchanges and gardens news, participation in members-only professional development workshops, and discounts for congress registrations. In time, this Newsletter will be sent only to members.

All individuals and botanic gardens that support the goals of BGANZ can join. The definition of a botanic garden is broad and intended to include all gardens permanently open to the public. The annual subscription for individuals is \$60 AU (tax-deductible for garden staff), and there is a sliding scale for institutional members depending on their annual budget. There's a membership form at the back of this Newsletter. Please join NOW and also get your colleagues and your garden to join.

The recent BGANZ Congress in Hobart hosted by the Royal Tasmanian Botanical Garden was an outstanding success, with a stimulating program of speakers, topics and workshops. Participants took away fresh insights and ideas to apply in their own organisations and extended their networks and friendships. On behalf of all attendees, I thank Mark Fountain and all his organising team for providing us with such an excellent conference.

**Philip Moors**  
**BGANZ President**

# OBITUARY

## Dr David Given

David Given – botanist, conservation biologist, author, mentor and botanic gardener



Dr David Given at the BGANZ Congress, Hobart, October 2005.

David Given, the founder of the native plant conservation movement in New Zealand died last week after a battle with cancer over the past 18 months. Those who spent some time with him at the recent BGANZ Conference in Hobart are still finding it hard to accept that the energy and passion he brought to that meeting has been so quickly extinguished.

David had such a focus and energy about him. The ideas tumbled out of him with speed and without a break. His single minded focus on New Zealand's threatened plants was brought to the attention of the public in his book *Rare and Endangered Plants of New Zealand* (1981). This started off a lifetime of commitment to threatened plant species on a global scale which included stints with the IUCN including co-chair of the global plant conservation programme of the Species Survival Commission.

A respected author he wrote three further books and published over 200 scientific papers. A systematic scientist he specialised in *Celmisia*, a genus he was revising at the time of his death with Japanese colleagues. He also had an interest in and great knowledge of the flora of the Chatham Islands

Perhaps fewer realized that throughout his professional career he had a great interest in botanic gardens and the role they could play in plant conservation. The first time I met David was in Dunedin in 1986 where he gave the Joseph Banks Memorial Lecture entitled *Botanic Gardens and Conservation: The Road from Las Palmas*". I was unprepared for the passion and intensity, and speed with which it was delivered. It traced the roles of botanic gardens, and the development of the Botanic Gardens Conservation Body, which later became BGCI. In the address he set out a blueprint for ex situ conservation in botanic gardens, one which is as relevant today as it was then. This started my personal interest and focus on ex situ conservation and gardens which culminated in a career change in 1991 as Curator of the Wellington Botanic Garden. David finally moved into the botanic garden field himself 2 years ago when he was appointed Botanical Services Curator for Christchurch Botanic Gardens. This part time role allowed him to remain involved in international plant conservation issues whilst working on the development of a long term master plan and vision for this historic garden.

David has been a mentor, guide and inspiration to many. He always had time to give advice often sprinkled with dry humour and the occasional good joke!! He had a strong Christian faith which he melded with his scientific background. The real joy of life and living things stayed with him to the end.

During the past two years, even when not in great health he supported the development of several groups including the New Zealand Plant Conservation Network (NZPCN) and BGANZ particularly the New Zealand section. My vision of him running around in August organizing the NZPCN conference in Christchurch, several weeks after surgery will always remain. He was running on pure passion and determination to let nothing stand in his way when it came to conserving our threatened species. At the same conference he received a lifetime achievement award for his work with threatened NZ plants. .

I can do no better than to finish with a quote from the man himself taken from that address he gave back in 1986.

*Perhaps there are two roads from Las Palmas. One is wide and easy. This is a road of laissez faire, which leads to eventual destruction of thousands of plant species and perhaps, eventually ourselves. The other road is narrower, it has its sacrifices, but it leads to a more secure world in harmony with nature. Each of us has to walk one or other of those roads and make our own conscious choice. Conservation and the future role of botanic gardens depends not on decisions made "out there" by someone else, but on what each of us wants to see happen and is prepared to make happen"*

Ka hinga te totara o te wao nui a tane  
A mighty totara has fallen in the great forest of Tane.

**Mike Oates**  
**Manager Natural and Botanic Areas**  
**Wellington City Council**

**Mark Richardson writes:**

In addition to New Zealand David has worked in over 50 countries, including the Antarctic. He co-chaired the global plant conservation programme of the World Conservation Union (IUCN) Species Survival Commission, was a regular contributor to Botanic Gardens Conservation International and played an significant role in the development of the Australian Network for Plant Conservation. During his career, David had a passionate interest in conservation, horticulture and botanic gardens and helped greatly to inspire many others around the world to have the same.

*(Dr Robert Boden reports that David Given also had a great sense of humour. At a conference at Kew which was discussing a leadership position David remarked that he wondered if a sign 'Change Given' on the underground was a bad omen for him.) Ed.*

Representatives from capital-city and regional Australian and New Zealand botanic gardens attended the CHABG meeting – Hobart, 28 October



## CHABG MEETING REPORT

There were a record number of representatives from both capital-city and regional Australian and New Zealand botanic gardens at the six-monthly CHABG meeting, held in Hobart on 28 October. The wide-ranging agenda items stimulated much discussion and important exchange of information.

The review of actions from the previous meeting provided an opportunity to study a co-ordinated strategy and suggested recommendations for CHABG to adopt in relation to the management and control of weeds in botanic gardens. The Australian Botanic Gardens Weed Network, initiated by Dr Roger Spencer from RBG Melbourne, has achieved a great deal since its inception earlier this year. Four proposals were put forward for consideration by CHABG, who agreed to endorse and adopt them.

CHABG Chair, Dr Philip Moors, commented that the Australian Botanic Gardens Weed Network provided a good example of how CHABG can come together to achieve something worthwhile nationally, and congratulated Roger Spencer on this

initiative and his work in achieving such effective outcomes. (Further information on the Weed Network and the Weed Policy can be found in an article written by Roger Spencer on Weeds in Botanic Gardens later in the newsletter).

Although there was no further activity to report on Parks Forum, CHABG agreed to keep this item on future agendas as a watching brief.

It is still proving difficult to raise the profile of the Global Strategy for Plant Conservation (GSPC) on a national level. The 16 GSPC targets are not prescriptive, requiring a moral rather than a legal commitment. This is seen as a major problem in their gaining acceptance. CHABG will continue to progress involvement in this important initiative within the Commonwealth Government's Biodiversity Decline Working Group.

Robin Nielsen, Director of ANBG, noted that ANBG was happy to continue hosting the CHABG Secretariat. With the commencement of the new Association, BGANZ, the CHABG Secretary, Virginia Berger, will amalgamate duties as Secretary to both organisations for the foreseeable future. This will be re-assessed at future meetings.

There were reports from all gardens which included an update of the new Australian Garden at RBG Cranbourne, to be opened on 28 May next year. Tim Entwisle gave an account of the Sotheby's auction of Wollemi pines held recently at Botanic Gardens, Sydney. This significant event raised \$1 million.

Mark Richardson, Director, Asia and Middle East Program for Botanic Gardens Conservation International (BGCI), joined the meeting and gave a short address on his work with BGCI and the role that Australian botanic gardens can play in SE Asia, particularly in the areas of training and staffing, advice and guidance.

A request for information was tabled at the request of Dr Robert Boden and Dr Ken Eldridge, outlining the development of the new Arboretum for Canberra. There are to be 100 tree species for "100 Forests" and there will be a theme of conservation of genetic resources. The interim Board seeks suggestions for suitable threatened tree species from anywhere in the world. CHABG members agreed that they were open to formal approaches on an individual basis.

Mark Fountain, the Coordinator of the BGANZ Congress 2005 reported to the meeting on the upcoming Congress. Philip Moors extended the thanks of CHABG to Mark and his team for the hard work he has put into organising a most interesting and potentially successful Congress.

Following the meeting, CHABG was addressed by HE Mr Fernando Schmidt, Ambassador of Chile and Mrs Antonia Echenique, who gave a presentation about the proposed Chagual Botanic Garden in Santiago. Mrs Echenique is keen to elicit some collaboration from Australia in setting

up two collections for an "Australian Garden" within the botanic garden. Robin Nielsen has been asked to act as the liaison between the Chagual Botanic Garden interests and Australian botanic gardens.

A major part of CHABG meetings is the opportunity they provide for heads of gardens to talk informally with each other. They provide an excellent forum for the exchange of information and ideas, and the sharing of problems associated with botanic gardens.

**Virginia Berger**  
**CHABG Secretary**

## **BGANZ CONGRESS 2005**

### **Impacts and Influence – The Environmental Potency of Botanical Gardens? (A brief report)**

#### **Now**

What does a Congress Convenor do after the Congress is over? In my case, it's try to remember enough to write this report, although I am deeply attracted by the idea of deckchairs,

#### **In the Beginning**

Congresses (I have now learnt) are like many projects, with a necessarily long planning phase culminating in only 6 days of actual gathering. The Congress organising Committee worked hard to set the Congress theme and the related stream themes, with a self-generated brief to seek presenters who could challenge us and/or demonstrate new approaches. The effort we put in to this critical formative phase created a program of strong coherent themes covering issues that will become increasingly relevant over the coming years.



Congress coordinator, Mark Fountain

### **The Key and the Keynotes**

Early on in the program development process Dr Tony Kendle accepted the role of the principal keynote speaker at the Congress as part of a tour of some of the mainland Botanic Gardens. This was propitious, as Tony's presentations perfectly fulfilled the Congress brief and clearly demonstrated what can be achieved by thoughtfully embracing alternative approaches.

Tony enthusiastically participated in all areas of the Congress (including the workshop panel and congress closing wrap-up). His capacity as a story teller and his thoughtful insights, seem to exemplify the 'Eden way' of signaling and educating about issues of critical importance in a positive, simple and engaging way, free of the sense of panic (or worse, pontification) commonly encountered when people discuss many of these challenges.

The Eden projects openness and willingness to embrace new ideas, communicated in Tony's gentle and engaging style, set the tone for the whole Congress.

The keynote speakers (Tony Kendle, Mark Richardson, Mark Webb and Tim Low) all delivered quality presentations neatly encapsulating and introducing their stream's key subjects and new developments while enumerating the challenges and opportunities.

### **The Content**

The Friday before the Congress saw the Council of Heads of Australian Botanical Gardens (CHABG) meeting hosted at the RTBG. In the Gardens at the same time and linked to the Congress, Theatre in a Wheelbarrow gave two exuberant performances of Captain Compost to several hundred children while Garden's staff took a number of tours for delegates and members of CHABG.

On Saturday the Congress sessions commenced, I attended a complete session from each stream to get some sense of the whole Congress and was impressed by the quality of all the presentations I saw, gaining value from each session.

(see the stream session reports, this issue)

### **The Breaks**

We incorporated long tea and lunch breaks and a number of social occasions into the program based on the belief that these chances to meet and talk are as important to the success of a Congress as any other component. It was clear, judging from the buzz of break time conversations, that everyone took full advantage of this opportunity (Obnoxious Weeds and some odd patrolling Doctors notwithstanding).

Many of the Congress delegates attended the congress dinner, after which Peter Timms shone his authors beam obliquely over the world of horticulture as defined by the garden, both in it's fictional, TV and real, the back yard, variations to ground us in the realm of the articulate layman.

**The Workshops** provided an opportunity to collectively discuss issues related to the Congress themes in greater depth. They covered subjects as diverse as: developing regional conservation initiatives and weed management issues, and slightly further away from the Congress themes: working with volunteers and developing experiential displays. The outcomes from some of these workshops will appear in future editions of the BGANZ newsletter.

## The Trips

Sixty six delegates and guides journeyed to Mount Field in perfect weather to look over examples of Tasmanian flora ranging from near rainforest to alpine. Apart from being a little leg weary and slightly overexposed to Tasmania's excessive UV everybody returned in one piece having become thoroughly expert in our wonderful flora.

Groups of delegates also visited the Port Arthur Historic site on Tuesday and Wednesday and were given a special behind the scenes look at how this award winning heritage site is being managed into the future.

**Now That It's Over** I can say that all the Congress feed back I have received so far has been very positive. I have had a few requests for Congress Papers and although I originally did not plan to produce any, I'm wondering if it might be possible (presenters beware), to investigate the idea of utilising the power points in one form or another as memory joggers.

## Reverberations

It was also wonderful to have had post Congress reverberations in the fantastic interview Tony Kendle gave on Radio National the Saturday morning after the Congress. This Australia wide interview was followed a week later by a very informative interview with our other international Keynote speaker, Mark Richardson, who highlighted the important roles played by Botanic Gardens and BGCI in regard to global plant conservation.

## Thanks

The Success of this Congress was largely due to the quality of the program and the program was a result of the efforts of the Congress organizing committee and the Stream



Coordinators: Caz McCallum, Robin Nielsen, John Schutz, Mike Oates / Bryan Gould.

Locally I had assistance from Andrew Ross, RTBG and Angela Bourke, (Department of Tourism Parks Heritage and the Arts) and was supported by all the staff at the RTBG.

**Mark Fountain**  
**Congress Convenor**  
**Manager, Botanical and Public**  
**Programs**  
**Royal Tasmanian Botanical**  
**Gardens**

above:  
Royal Tasmanian  
Botanical Gardens

# BGANZ CONGRESS - STREAM COORDINATORS' REPORTS

**Taming the Backyard - Weeds and Urban Ecology**  
**Stream Co-ordinator: Caz McCallum,**  
**Managing Curator, Mount Annan Botanic Garden**

This stream was designed to address how our botanic gardens need to assess collections in the light of past experiences with garden escapes and ecological impacts, exercise our duty of care to prevent further invasive weed spread, and educate our staff, visitors and Friends. Speakers were chosen specifically to present a balanced, informative and thought provoking approach to weeds and urban ecology.

So what did we learn from each of these speakers? In summary, Dr Roger Spencer presented a weed policy and assessment proposal developed by a botanic garden network following targets set by the Council of Heads of Botanic Gardens in 2003. Roger proposed that botanic gardens should be prepared to assess their collections to ensure no addition to the \$4.2 billion current cost of weeds to Australian industry. Ideally Gardens will also contribute by testing the risk assessment system when it reaches final draft stage.

John Sawyer's presentation was based on his Dept of Conservation experience in Wellington where rare and endangered species are used in traffic island plantings. This novel, though very effective approach, was developed in partnership with Council staff and has meant highly endangered plants like *Muehlenbeckia astonii* are no longer limited in number and spread.

John Thorp, National Weeds Facilitator, encouraged delegates to consider weed impacts, the need for collections assessment and familiarity with Weeds of National Significance. Future expansion of collections, he suggested, should take into account the Permitted Plant List (to be released in 9 months), a response to the National Trust's National Biosecurity Strategy. Only when the weed agenda becomes part of party platforms, John warned, will the goal of serious weed management succeed.

Tim Low was the keynote speaker for this stream and challenged at least some botanic garden methodology employed in recent times, and their motives. Making no apologies for his point of view, Tim Low proved to be a naturalist who responds visually, emotionally and almost spiritually to plants, particularly long lived trees. His respect for native plant survivors and their interaction with birds, reptiles and animals was left in no doubt and his audience was challenged to reassess what we stand for and where we want to go.

Andrew Rozefelds presented an interesting analysis of 200 years of weeds in Tasmania, focussing particularly on naturalized weeds i.e. 740 weeds that not only grow in our gardens. They happily grow in a range of locations with many modifying their environment. The past has set the future in motion, but the future we still can mould.

Professor Jamie Kirkpatrick warned of the 'no input exotic gardens' and the 'complex native gardens' of elderly people. These contribute most to weed dispersal.

Keeping weeds out of declared wilderness areas and natural areas in good condition should be top priority as there is no point worrying about irreversible weed naturalization.

The final speaker, Richard Groves was a very entertaining speaker who despite referring to himself as an 'old codger', created a sense of relief for us all. He confirmed that botanic gardens and similar haven't really caused too much (statistically anyway) weed spread (10%). But we should not ever become complacent.... How true!

**Caz McCallum**

### **20/20 Foresight Collections into the future**

**Stream Co-ordinator: Robin Nielsen, Director Australian National Botanic Gardens**

The Congress proceedings presented a range of issues surrounding the future of Living Collections, and the uses to which they will be put.

#### **Keynote Talk**

##### **Living collections and science: synergy in activity and outcome.**

Paper authors - Dr Deanna Rokich and Mark Webb, Chief Executive Officer of the Botanic Gardens and Parks Authority (BGPA) in WA. Presented by Mark Webb.

The talk focussed on the importance of close integration between the living collection and scientific arms of Botanic Gardens, using the experiences of the BGPA in Perth. His talk set the scene for the various pressures and opportunities in such integration. BGPA has been highly successful in leveraging six permanent scientific positions up to 35 externally funded positions.

##### **Living Collections – challenges and opportunities**

Paper authors – Mark Webb, Roger Fryer and Grady Brand, Botanic Gardens and Parks Authority, WA. Presented by Mark Webb, CEO Botanic Gardens and Parks Authority, Western Australia

Mark spoke about the history of living collections within botanic gardens. This history overview discussed how botanic gardens have been important for international trade, medicinal collections, and in the last two centuries they have been essential for research and education.

Living collections are not a means unto themselves and we are facing constant challenges to make our collections relevant for the future. Some future challenges Mark mentioned were:

- To play a greater role in plant conservation research and as a resource for environmental rehabilitation projects.
- For education on conservation importance
- The breeding of improved cultivars for urban horticulture.

Kings Park and Botanic Gardens in Perth is currently conducting selecting and breeding new Australian plant cultivars. Another challenge for Living collections is to demonstrate better water use. Kings Park is establishing a low water use garden emphasising the importance of using Australian plants.

##### **Integrating science and the community in the context of changing expectations**

David Given – Botanical Services Curator, Christchurch City Council, New Zealand.

David spoke of the historical synergies between botanic gardens and universities. He spoke of the important role Botanic gardens played in linking research with the population. Often the public feels detached from the science world. He said that Botanic gardens can play a role in urban research and also relating to the 16 GPCS targets. Christchurch Botanic Gardens are intending to become involved with urban research projects like:

- Smog effect and can trees reduce this
- Water/energy saving opportunities
- Tree stress in urban settings

David stated that a further factor for Botanic gardens is that “ the plant collections of botanic gardens need to be increasingly linked, rationalised and purpose driven- there are probably few botanic gardens that have the luxury of accumulating accessions simply because they are available or may one day be useful”.

Funding for research can be hard to find and the gardens must engage with the private sector to receive adequate funding.

### **Booderee Botanic Gardens – Caring for country**

Paper authors – Debbie Stevenson (formerly of Booderee Botanic Gardens, Evonne Brown and Bernie McLeod (Booderee Botanic Gardens)

Presented by Bernie McLeod, Stig Pedersen – Booderee Botanic Gardens

Both Bernie and Stig spoke about the history of the Booderee National Park and Botanic gardens. They were officially handed over to the Wreck Bay community (WBC) in 1995. The Park and Gardens are jointly managed by the WBC and the Federal Department of Environment and Heritage. Since the hand over the botanic gardens has changed its focus from being a frost free annexe for the Australian National Botanic Gardens in Canberra to becoming a centre of excellence in the education and interpretation of how the local Koori community used plants for medicine, clothing, shelter, food and weapons.

The gardens staff are mainly from the WBC and it is intended that one day soon the Park and gardens will be solely managed by the WBC. Bernie McLeod has been selected by the elders of the WBC and he has received much training and knowledge handed down from his elders to pass on to the next generation. The elders also

listen to what Bernie has to say and his botanical and horticultural training is well respected by the WBC elders.

The Booderee Botanic Gardens will be collecting and holding plants from Sydney down to Eden and as far west as the Great Dividing Range.

### **Interpreting Collections – giving plants a voice**

Janelle Hatherley – Botanic Gardens Trust – RBG Sydney

Janelle spoke of the importance in making interpretation interesting for visitors. She said that interpretation of displays in botanical gardens is the same in many ways to a theatre. The plants are the props and the message is the plot.

Soon the RBG Sydney gardens will be opening a new orchid display called ‘Sex and Death’. This title alone will draw attention to the display. The interpretation of this exhibition will include an orchid slide for children, amazing videos and a hands on component where children can pull apart flowers to experience them at a micro level.

The interpretation will tell a story of the various reproductive mechanisms that orchids have developed through evolution by attracting and deceiving insects by their floral parts.

### **Herbarium Collections - an essential piece of the botanical jigsaw**

Gintaris Kantvilas, Tasmanian Herbarium

Gintaris spoke about the history of herbaria and the important role they play in botanical research. He said that the first known herbaria were established in Italy in the 1600’s. They also included botanical art and can now days include photos to support specimens.

He explained the roles herbariums play which include:

- Conservation
- Ecological research
- Education
- Development of systematic keys for identification.
- The AVH (Australian Virtual Herbarium) is a modern form that Herbaria may take.

He also posed a question as to whether Herbaria should be located within botanic gardens or universities/museums. The Tasmanian herbarium has been moved many times between the Botanic gardens and the museum or university.

### **Plant Records – the basis of gardens information**

Frank Zich, Plant Records Manager, ANBG

Frank explained the process used by the plant records team at the ANBG. He discussed the importance of good databases and how they can be accessed by gardens staff or the public through the internet.

Frank then discussed how gardens may manage plant records into the future. He explained that technology is moving towards having a wireless network in gardens. Plant records can be updated through a laptop or tablet PC with a wireless connection to the database server. He also spoke of the technology being used by visitors where a visitor could hire a pocket PC and then receive information about plants simply by standing within range of a plant. An electronic tag (RFID – radio frequency information device) would activate the pocket PC to give the visitor distribution maps, web based information from the database, etc.

**Rapporteur – Paul Janssens,  
Curator of Living Collections, ANBG**

### **Cultivating Minds - Environmental Education**

**Stream Co-ordinator: John Schutz,  
Head of Gardens, Botanic Gardens  
of Adelaide**

When the coordinating group first meet to develop the Environmental Education stream, we identified that we wanted to use the stream as an opportunity to push education in Botanic Gardens further than we ever had before. We wanted to establish education as a core business activity; a fundamental objective for Botanic Gardens not just an add on. I would suggest to you that we have achieved our objectives during the congress.

The various stream presenters have challenged us all. We have been told “We are pivotal people in a pivotal generation” and “we have a duty to hope”. While there are numerous significant issues facing our planet that can be overwhelming and more than enough cause for us to say it is all too hard, we have heard how all of us, collectively and individually can make a difference here and now.

The Environmental Education stream has provided lessons from Eden with outstanding presentation by Dr Tony Kendle. Our presenters have shown what our major Botanic Gardens are doing to push the boundaries particularly aimed at how we can better engage our children through the development of children’s gardens, we also learnt how small and regional gardens can develop an education program and the importance and value of volunteers and friends groups in developing and delivering an education program.

We were told that we need to take a risk, have a go and try something new. We were entertained and confronted throughout the Congress by theatre

and play acting – even being asked to get involved which challenged same peoples' comfort zones. We looked at how familiar plants and old paradigms are being challenged at the new Australian Garden in RBG Cranbourne.

At this Congress through the Environmental Education Stream we have given education the true recognition it deserves and provided you with a renewed enthusiasm, reason for being, and justification to go back to your organisation and respective roles and have a go, and contribute to Botanic Gardens and plants continuing to changing the world albeit one day at a time.

I would like to thank the following presenters who worked so hard to put together such engaging and inspiring presentations for the Congress. Without them we would not have had a Congress to attend.

**Dr Tony Kendle, Janelle Hatherly, Michael Connor, Chris Russell, Steve Meredith, Christine Joy, Ro Noone**

### **Future Perfect – Environmental sustainability for botanic gardens**

**Stream Co-ordinator: Bryan Gould, Manger Premier Parks, Parkscape Services, Customer Services Group, New Plymouth District Council, New Zealand**

The term “sustainability” is well used and widely applied to so many issues central to botanical garden management. Speakers within this stream discussed aspects of sustainability related to a broad spectrum of financial, corporate, political, social, design and biological practice.

**Sheryn Pitman** (Sustainable Landscapes Project Officer, Botanic gardens of

Adelaide) *The sustainability challenge - reconciling human self-indulgence with sustainability*

In discussing sustainable landscapes Sheryn indicated the need for strong partnerships between all stakeholders and the adoption of effective initiatives, advocating that collaboration invariably results in better outcomes.

**David Sole** (Manager, Wellington Botanic gardens, Wellington) *Managing the pest environment in Wellington Botanic Gardens*

David endorsed the need to review, monitor and apply good integrated pest management practice into the garden – and indicated improvements in plant care and hygiene were only truly possible as a result of appropriate assessment, review and scrutiny.

**Jerry de Gryse** (Director, Inspiring Place) *If the earth could talk: sustainability principles for a new arboretum*

Jerry's approach to landscape design was always to work with nature – to achieve harmony in design through consideration of a range of site factors, which included land form, climate zones and the visitor's experience.

**Pauline Markwell** (Royal Botanic Gardens, Sydney) *Environmental sustainability for botanic gardens*

Pauline considered the special challenges of obtaining private funding for public gardens. Her comments suggested fund-seekers should always think laterally and change with the times, whilst remembering that funding is subject to an array of political, financial and social pressures and influences.

**John Arnott** (Director, Geelong Botanic Garden, Geelong) *Environmental audits of botanic gardens*

John raised the issue – perhaps surprisingly and unexpectedly for some

– of environmental audits in gardens. The process enabled managers to identify and minimise negative effects and, thereby, maximise the positive environmental impacts of their operations by reviewing and redefining practice.

**Roger Spencer** (Royal Botanic Gardens, Melbourne) *Environmentally friendly gardening*

In developing a series of sustainable gardening handbooks covering a range of environmental topics Roger faced difficulties in reaching consensus regarding correct and appropriate practice – concluding that defining the facts, prior to committing them to print, was the greatest challenge – and one which faces everyone involved in garden management.

All the speakers in this stream provided valuable thought-provoking information. In their own way each one offered comment and advice which was relevant or applicable to our own workplace situations.

**Bryan Gould**

## ARTICLES

### **A Role for BGANZ Members in Asia/Oceania.**

**Mark Richardson, Director of the Asia and Middle East Program for Botanic Gardens Conservation International (BGCI)**

One of the major issues facing botanic gardens in developing countries throughout the Asian and Oceanic region is the lack of experience in terms of both botanic gardens management and the botanical/horticultural knowledge needed to run them. With no in-country training facilities, a principal source of help

available to resolve this problem are botanic gardens in developed countries. Until recently, much of this assistance has been sought from Europe and the USA with only a limited recognition of the resources lying much closer in places like Singapore, Australia and New Zealand. Over the past three years, Botanic Gardens Conservation International (BGCI) has sought to change this and make much greater use of local expertise.

As a part of the recent BGANZ Congress held in Tasmania in October 2005, a workshop was held to look at what assistance is needed by botanic gardens in the Asia and Oceania region and discuss what help botanic gardens in Australia and New Zealand might be able to provide.

Roy Banka from the Lae Botanic Gardens in Papua and New Guinea spoke about their position in relation to future development and making an effective contribution to plant conservation in Papua and New Guinea. The major weakness facing the Lae Botanic Garden is a general lack of personnel with the expertise necessary to develop the garden or assist with the plant conservation issues facing their country. While he noted that it is often possible to attract the funding for such work and while there is an expectation that they are the appropriate organisation, they do not have the experience or knowledge to carry programs forward. To resolve this situation input from Australia and New Zealand would be invaluable.

Mark Richardson from BGCI reiterated what Roy Banka had said in relation to the immediate need for expertise in botanic gardens throughout the developing countries in Asia. At present, there are, for example, ten new botanic gardens being established in Indonesia but all of them have the

same real need for expert advice and training. In response to this, a lot of the work that BGCI is currently doing in Asia is in relation to capacity building, whether in terms of running training workshops, funding small projects or encouraging partnerships and networking among the botanic gardens in the region. Botanic gardens in Australia have already played their part by providing expert speakers for training in India, SE Asia and China.

Dan Bishop, from the Royal Botanic Gardens, Sydney spoke about a project between RBG and the Guizhou Botanical Garden in Guiyang City in China. In addition to the development of their research programme, the Gardens would benefit greatly from improvements to their propagation and nursery practices and the development of a plan of management. An important aspect of this project is that it was not as a result of any particular program or decision to do this type of work. It is, like most other similar projects done by Australian and New Zealand botanic gardens, the result of an opportunity that happened to arise. Bryan Gould from New Plymouth, New Zealand spoke about the possible assistance that could be provided by botanic gardens in New Zealand and Australia to botanic gardens existing in the Oceania region or to countries that are keen to develop a botanic garden and associated plant conservation programmes. At present there are no links established and little is known about the status or need of any remaining organisations.

From the discussions held in the workshop, it was generally agreed that the official launching of BGANZ provided a good opportunity to look at the role that Australian and New

Zealand botanic gardens could have in the Asia/Oceania region.

The main suggestions to come out of the workshop for further discussion/action by BGANZ were:

1. The establishment of a BGANZ committee to promote collaboration between BGANZ members and the botanic gardens in the Asia/Oceania region.
2. The establishment of a link between BGANZ and BGCI.
3. The determination of regional priorities by BGANZ in association with BGCI and the regional botanic gardens community.
4. The communication to national governments of BGANZ's existence and possible role in the Asia/Oceania region
5. The creation of strategic alliances between BGANZ and other key organisations in the Asia/Oceania region
6. The use of the BGANZ website to provide:
  - a register of BGANZ members interested in networking and exchange/outreach in the Asia/Oceania region
  - the point of contact that will list requests opportunities for collaboration/assistance sponsorship
  - a database of case studies and projects that would provide information and outcomes, plus evaluation of success

Philip Moors, Chair of the inaugural BGANZ Council, agreed to carry these recommendations forward to their next meeting for consideration.

**Mark Richardson**

# FEATURE GARDEN

## Mount Annan Botanic Garden

*Mount Annan Botanic Garden, the largest botanic garden in Australia, is the Australian plant garden of the Royal Botanic Gardens and Domain Trust in Sydney. A dream of Joseph Maiden in 1912, it is located in the Macarthur region 65 kilometres south-west of Sydney. With temperatures ranging from -4° to 39°C and rainfall less than 700mm per annum, it is a tough site for any botanic garden.*

## Beginnings

Originally occupied by the Dharawal Aboriginal community, the site of the Garden was later part of a 3000 acre land grant to William Howe, a Scottish free settler, in 1818. The Glenlee estate was a successful dairy farm for many years before its transfer to the State Planning Authority in 1968 and finally the Botanic Gardens Trust in 1984. It opened to the public as part of Sydney's Bicentennial celebrations in 1988.

## Plant Collection History

The original vision for the Garden estate was to display 90% of Australia's flora in themed displays. From a botanical point of view, the strong taxonomic element in the original layout of the Garden was very exciting. The centrally located Terrace Garden covered 4.5 hectares and was built to display Australia's flora in evolutionary sequence, beginning with primitive ferns and fern allies, culminating in comparatively recent grasses and palms.

Other thematic plantings included the Wattle Garden, Cassia Garden, Banksia Garden (Proteaceae genera from eastern Australia), the Bottlebrush Garden and several arboreta.

These were complemented by broad grassland sweeps interspersed with conservation Cumberland Plain Woodland.

## Current Plant Collections

There is no better teacher than time and developing the Garden was an ambitious project providing a steep learning curve for staff. Growing Australian plants was always going to be a challenge due to lack of information, public perception and prejudice. There have been some spectacular failures e.g. the Cassia Garden which was devastated by *Phytophthora*. And there have been some wonderful successes such as the ever popular Banksia Garden.

Themes have been expanded in recent years to include ecological plantings, a rare and endangered garden, native cultivar plantings, spring and summer wildflower displays, annual mazes (sorghum), a children's playground, a Federation pavement maze in the shape of a flannel flower and a beautiful, landscaped entrance to the Garden.



The Water Garden, Stage 1 of the Connections Garden redevelopment of the Terrace Garden

A Master Plan was completed in 1999 by Spackman and Mossop, landscape architects and planners, who developed a strategic framework for this contemporary Garden. This plan considered a wide range of expert and community views. The focus on Australian plants was endorsed, but it was decided to give greater emphasis to the State flora.

Other key objectives in the Master Plan are to promote conservation and appreciation of Australian ecosystems; engage and educate the local community about plant, animal and human interrelationships; encourage recognition as leaders in research and development of Australian and especially NSW plants; provide an intergenerational legacy for recreation and cultural expression; provide opportunities to understand, interpret and appreciate the cultural heritage of the region; manage the Garden using principles of ecological sustainability; and establish the Garden as a recognized tourist destination.

This document is currently under review in-house. Questionnaire outcomes will be tempered by consultation with local Councils and state government agencies about future regional plans and how the Garden can fulfil social, cultural and environmental expectations within the context of future urban expansion plans.

### **New Developments**

The Master Plan recommended a redevelopment of the Terrace Garden, with a working title of 'Connections Garden'. With related genera often requiring entirely different cultural conditions and with access to the collections poor, the original design was a horticultural nightmare. Due to the poor performance of many plantings and the complexity of the concept, the Terrace Garden also

failed to deliver a clear evolutionary message.

The Connections Garden will be a roofless museum comprising 'rooms' and 'corridors', vistas and open spaces designed to entice visitors to discover and explore the interconnectedness of humans with the natural world. The key themes will be Plants through Time, Plants and Habitat, Plants and Animals and Plants and People. Stage one (Plants through Time) was completed June 2005 and included water features, a cascade, deck, bridge and renewed planting including the Wollemi Pine. Stage two will improve access links to the other themes and planting of a Wollemi Pine grove.

Other planned developments for Mount Annan Botanic Garden are: an adventure walking trail called the Wollemi Pine Walk of Discovery (autumn 2006); the Big Idea Garden; a new, sustainable education centre; the Fruit Loop Garden (bush tucker); the Grevillea Garden with 450 metres of dry stone retaining walls; an Adventure Eco-playground; and a Love Knot dry stone sculpture as part of a wedding tree avenue (April 2006).



The Blue Ruin – A work of art designed to draw attention to the role of dead trees in ecology

## Natural Areas



Wallaroo and her joey

Mount Annan Botanic Garden has also become an important green space in a rapidly developing urban area. The natural values of the Garden are now an important dimension to the visitor experience, with wallaroos and swamp wallabies now regularly seen in the woodland and grassland areas. Almost half of the site is remnant vegetation, ranging from good condition to severely degraded and including a mosaic of vegetation types and fauna habitat. A number of endangered ecological communities are represented on the 416 hectare site.

Vegetation management aims to control the aggressive woody weed African Olive and maximise internal wildlife corridors linking to the Nepean River. Slashing, control burns and associated research are additional techniques employed to control the threat of fire which is constant during the long, hot summers.

## Stolen Generation Memorial Garden

In recognition of the cultural heritage of the Garden and the dream expressed by Carol Kendall of creating a place of peace, harmony and reflection dedicated to all 'Children of the Stolen Generations', a memorial to the Stolen Generations will be created at the Garden. Construction commenced in 2004 and continues with the help of Aboriginal park management trainee groups. Funding is primarily from the NSW Department of Education and Training but Forests NSW supplied the hardwood to complete a boardwalk through a conservation area to a private place for reflection where a sculpture will be placed.

Badger Bates, a well known, local Aboriginal artist, will carve a large sculpture depicting life size figures of a father, mother and child with a river of tears and pond at the base.

The Garden opening is planned for Sorry Day, 26 May, 2006.



Conservation Area – Natural Cumberland Plain Woodland, a place for reflection

## Events and Visitors

The Garden is a perfect venue for large events and hosts several community events through the year, the best known of which is Carols in the Garden. Over 3,000 people come to celebrate this important community gathering. The venue is a natural amphitheatre that can easily seat 10,000 people overlooking beautiful Lake Sedgwick. Local Councils also see Mount Annan as the natural choice for a range of events, from open air theatre to cross-country walks.

The new Water Garden, part of Stage 1 of the Connections Garden, is rapidly becoming popular for weddings. Mount Annan Botanic Garden has other purpose built sites where couples can say their vows, including Room with a View (donated sculpture designed by Jamie Durie), the Wedding Arbour in the Wattle Garden and Sundial Hill.

Last financial year's visitation was over 90,000. With entry fees and the need to travel to the Garden by car, the estate is most popular with local families who enjoy not only the cultivated areas of Australian plants, but the fresh air, feeling of space, new sculptures like the wood carved Snail Family and the Blue Ruin, and the views from Sundial Hill. NSW Seed Bank and Seed Quest NSW Since the opening of the Garden, collection of seed for planting and conservation has been core business. However following signing of an Access and Benefit Sharing Agreement in 2003 by Royal Botanic Gardens, Kew Director, Professor Peter Crane and the Executive Director of Botanic Gardens Trust, Dr Tim Entwisle, there has been an increased commitment to seedbanking. Funding from the Millennium Seedbank project at Kew has allowed us to establish a seed program to:

1. Increase the number of long term seed collections of priority NSW species held and available (250 species is the target per annum);
2. Build capacity within the Trust, including a review of current methods of ex-situ seed conservation and the adoption of improved methods, where necessary;
3. Strengthen recovery planning for threatened species and ecological communities; and
4. Improve knowledge and understanding of common and threatened NSW species through research into seed biology.

In the last financial year, 267 collections were made and duplicated at the NSW Seedbank (Mount Annan) and the Millennium Seedbank. Despite drought conditions, the SeedQuest NSW project is ahead of collecting targets, with 16 threatened species represented. Seed has also been made available to support community conservation projects such as revegetation in the Capertee Valley as part of the Regent Honeyeater Recovery Plan.

top:  
Picnic on Sundial Hill – Best views from the Garden to the City skyline and to the Blue Mountains  
below:  
Seedbanking – Cleaning and storing of seed from a recent collection trip in western NSW



## Horticultural Research and Nursery

Besides SeedQuest NSW research, plant breeding trials and research have been conducted with waratahs, flannel flowers, orchids, *Wollemia nobilis* and a wide range of other Australian plants. *Actinotus helianthi* research aims to extend the flowering season and produce varied flower sizes. This has supported the inception of a small commercial division. "The Collection" comprises besides the Flannel Flower range (cut flower and potted forms), a local paper daisy *Rhodanthe anthemoides* and two prostrate *Hardenbergia* ('Flat White' and 'Carpet Royale'). The nursery supports these activities and produces most of the plant material required for plantouts in the Theme Gardens.

## Sustainable Horticulture, Education and Macarthur Centre for Sustainable Living

With BGT commitment to sustainable horticulture, all facets of development incorporate this goal in planning stages. Similarly the Community Education unit in the Garden focuses on getting children to connect with plants, the fauna, ancient and more recent cultural heritage of the site. Once children make that connection, whether conscious or subconscious, the Garden becomes part of their social fabric. Future conservation relies on our young people.

In tune with the Trust's commitment to sustainable horticulture, the partnership with CERES Macarthur, a community group devoted to sustainability, has been formed to develop the Macarthur Centre for Sustainability. Federal funding of \$2.1 million furnished by the Sustainable Regions Committee, an arm of the Department of Transport and Regional Services, will see the Centre developed on a peppercorn leased 5.3 hectare parcel of Mount Annan Botanic Garden land.



Construction of an education centre, café, nursery, carpark and demonstration gardens and water treatment system is planned to commence January 2006. The functions of the Centre are designed to complement the Garden's activities including tourism.

## Towards 2016 and Staff

In 2016, the Royal Botanic Gardens, Sydney will be 200 years old. To prepare for that event, a number of working parties have been set up with volunteers to decide over the next few years what our priorities for that celebration should be. Funding will be sought from the State Government and private and corporate supporters. The bicentenary will be a chance to celebrate the achievements of the organization, as well as plan its future for the next 200 years.

top:  
Spring at Mount Annan.  
All of these plants were propagated in the Garden's nursery as are most plants used in displays above:  
Class at Lakeside – What better place for a nature lesson or a concert?

With over sixty positive, motivated and skilled staff, Mount Annan Botanic Garden will continue to contribute to Trust's future. The Garden's vitality, exciting social, cultural and educational activities, scientific research, horticultural and natural areas management systems will continue to develop and grow while attracting more interest and support. And given the growth anticipated in the south western metropolitan area, Mount Annan will become a treasured green island in an urban sprawl.

**Caz McCallum**  
**Managing Curator, Mount Annan Botanic Garden**

**Assisted by:**  
**Rebecca Moutia, Events and Marketing Coordinator**  
**Geoff Duggan, Landscape Planning Officer**  
**Peter Cuneo, Manager Natural Heritage**  
**Tracey Armstrong, Garden Information Officer**

## **WEEDS IN BOTANIC GARDENS**

**Dr Roger Spencer, Royal Botanic Gardens Melbourne**

Botanic gardens began to tackle conservation issues in the 1960s and '70s as the environmental movement gathered pace. Conservation collections of rare or threatened plants were established, and botanic gardens became plant havens. This vision has now evolved. As the natural world staggers under the pressures of an ever-increasing human population, efforts to slow the process of environmental degradation have galvanised around the notion of

sustainability, the attempt to leave the biological world in as healthy a state as possible for future generations. This presents many challenges for botanic gardens, but high on the agenda is the devastation caused by biological invasions. Current estimates suggest that the cost to Australia's primary industries in lost production and weed control now exceeds \$4 billion p.a.

To date botanic gardens have played a relatively small role in the effort to stem the tide of invasive plants; regulating their own activities in relation to weeds has been largely informal, the result of expert opinion. A more formal process is required drawing on the best expert knowledge. Weeds are a difficult and controversial topic. Outcomes of this process are likely to be regulatory or prohibitive and it will take time, labour and money – all factors that discourage enthusiastic action.

For many years Botanic Gardens were part of an international network exchanging seed lists (Index Semina) – this being the main means of plant acquisition, especially the rare and unusual species. However, seed exchange is now restricted. Firstly, there is the legally binding *Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)*. Secondly, under Article 8 of the 1993 *Convention on Biological Diversity (CBD)* national governments are called on "to prevent the introduction of" and "control or eradicate those alien species which threaten ecosystems, habitats or species". The *Global Invasive Species Program (GISP)* was established in 1997 to address the global threat and support the implementation of Article 8 of the CBD. As a result of these international initiatives there is now a common agreement among many botanic gardens to carefully monitor the acquisition and use of genetic

resources, one aspect of which is obtaining consent from the country and/or organisation of origin to ensure potential benefit sharing (including non-monetary benefits). There is no more dipping into the Seed List candy store. The major Australian botanic gardens have not produced Index Semina for many years and seed acquisition from overseas is dealt with by special request and supervised with caution.

Botanic gardens not only display the plant world in all its glory but also, consciously or not, help mould the public perception of what plants mean to us. The current dire state of the biosphere is not a sexy message to sell – but it is a story that must be told nevertheless, for the sake of future generations. We can both enjoy and protect plants and that must be part of the botanic gardens mantra. And high on the agenda must be public education about the environmental and agricultural damage caused by invasive plants.

Botanic Gardens are associated with horticulture - and it is ornamental horticulture in particular that has contributed most to this problem. Here are the figures\*:

- 60-70% of the naturalised plants in Australia have escaped from gardens
- In 1999 the Australian *National Weeds Strategy Executive Committee* announced a list of 20 weeds of national significance (WONS). These are considered the most damaging weeds in the country based on their invasiveness, potential for spread, and their socioeconomic and environmental impacts: 14 of these plants (70%) are garden escapes
- About 40% of Australia's current declared weeds are invasive garden plants

Present-day figures indicate that, even with the wisdom of hindsight, we have a long way to go in increasing public awareness, and assisting with the management of potential weeds used in horticulture.

- Between 1971 and 1995 about 200 of the 300 newly naturalised plants in Australia were introduced to the country as ornamentals
- About 54% of the currently recognised 720 naturalised invasive garden plants were on sale in nurseries in 2002

### **Australian Botanic Gardens Weed Network**

*In October 2004 the Council of Heads of Australian Botanic Gardens (CHABG) approved a proposal for a cooperative effort to deal with the problem of environmental and agricultural weeds. This issue had emerged clearly at the Botanic Gardens of Australia and New Zealand Conference in Geelong in 2003. CHABG supported the development of common policies, procedures and a weed risk assessment methodology for Australian botanic gardens, committing staff to the process. The task was to be carried out with the assistance of the Cooperative Research Centre for Australian Weed Management.*

A working group of representatives has been established, called the Australian Botanic Gardens Weed Network (ABGWN). To date the ABGWN has a membership of about 75 organisations with representatives from the major city botanic gardens, the regional botanic gardens of Victoria and New South Wales, and also representation from the zoo community.

1. Development of a common Weed Policy statement

2. Establishment of an initial cooperative sharing of policies, weed procedures, lists, and information resources and approaches to weed risk assessment and weed risk management
3. Development of an effective strategy for the detection and management of weeds in botanic gardens through the use of agreed Weed Risk Assessment and Weed Risk Management Procedures

The difficulties confronting botanic gardens will no doubt focus on the tension between environmental values and what may be termed botanic gardens values such as: heritage, education, science and scientific research, conservation, and public landscape. Botanic gardens also often enjoy good relations with the nursery industry.

Much progress has already been made.

CHABG has endorsed all the ABGWN recommendations: this includes a Policy and initial methodology for weed risk assessment.

There was also agreement for the recommendation, through an ABGWN Workshop held in Melbourne on 27 July 2005, for a 2 year position of Weed Coordinator based at the Royal Botanic Gardens, Melbourne pending a successful application for funding under the Federal Defeating the Weed Menace program.

The first major task is to test the Weed Risk Assessment and Management (WRAP'M) process established with the Assistance of the Australian Weed Management CRC. It has been proposed that each of the major city gardens (and anyone else who is interested) put about 100 plants through the scored WRAP'M to establish a range of risk values for the future.

We can all share our weed knowledge – this makes the information gathering phase and assessment much easier.

In the March issue it should be possible to report in detail on progress with the Weed Risk Assessment.

## **AUSTRALIAN BOTANIC GARDENS WEED POLICY**

**The major Botanic Gardens of Australia, in collaboration with regional botanic gardens and kindred organisations, are committed to the conservation and enhancement of Australia's natural, economic and cultural biological resources. They will therefore encourage and demonstrate environmentally responsible horticulture and other sustainable management practices by striving to:**

- Restrict the development of new weed problems in Australia by preventing the introduction to botanic gardens of species known or thought to have weed potential.
- Prevent the dissemination of known weed species from botanic gardens collections.
- Reduce the impact of existing weeds by identifying and managing existing problem species and monitoring plants entering and leaving sites
- Develop a framework for continuing weed management through the cooperative exchange of information and the development of agreed policies, procedures and a weed risk assessment methodology
- Develop programs to educate and inform the horticultural community and general public on weeds and weed issues

note: References to figures quoted here are given in the *Weed Resource and Information Pack* available on the web site of the Royal Botanic Gardens, Melbourne [www.rbg.vic.gov.au](http://www.rbg.vic.gov.au).

**Roger Spencer**  
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## **CANBERRA INTERNATIONAL ARBORETUM AND GARDENS**

The Chief Minister of the ACT announced the development of the new Canberra International Arboretum and Gardens in October 2004 with the launch of a design competition. This is one of the key bushfire recovery projects in the ACT. The winner was announced in May 2005. The winning team are Taylor Cullity Lethlean Landscape Architects with Tonkin Zulaikha Greer. The ACT Government and the Interim Board have adopted this winning concept and are promoting the goal of representing and conserving trees at risk, trees that are also suited to growing on this site. The winning design can be seen at: [http://www.cmd.act.gov.au/nonurban/projects/aboretum\\_designwinner.shtml](http://www.cmd.act.gov.au/nonurban/projects/aboretum_designwinner.shtml)

There are to be 100 tree species for "100 Forests", each forest being about 1 to 3 ha. There will be a theme of conservation of genetic resources. Each species is to be to some degree at risk of extinction in the wild, able to grow with minimal or no irrigation on

the 250 ha site 5 km west of Parliament House, be interesting to look at, not a weed, and available.

The first Stage of the Arboretum and Gardens will be completed in Spring 2008 with tree planting planned to commence in May 2006.

The Interim Board of the new Arboretum and Gardens seeks suggestions for suitable "threatened" tree species from anywhere in the world. The landscape architects Taylor Cullity Lethlean and consultants Dr Robert Boden, Dr Ken Eldridge and Dr John Turnbull are in the process of choosing 15 to 30 species for planting before 2008 and another 90 for later years. To develop the list, a systematic search for suitable species has commenced but it is possible that lists such as the IUCN Red List may not include all relevant species. Professor Peter Kanowski (Board member and Chair of the Tree Sub Committee) has identified that it is very important therefore that experts in Australia are canvassed, for their suggestions for trees for inclusion in the Arboretum's collection.

Please send enquiries and suggestions to Jocelyn Plovits, Senior Manager, Strategic Projects and Implementation, Chief Minister's Department.

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Thank you for your assistance in developing this wonderful new Arboretum.