



FRIENDS OF THE CANBERRA INTERNATIONAL ARBORETUM AND GARDENS (CIAG) INC

D A T E A P R I L 2 0 1 0 | V O L U M E 9

Dear *Friends*

Well I hope you have all recovered from the Festival of the Forests 2010. Did you notice that the name of the Arboretum has changed to National Arboretum Canberra and that the logo for the Arboretum has been finalised? The logo is round and features leaves from the Arboretum – just like our square Festival logo already features leaves – a nice synergy.

What a fantastic event the Festival was, with up to 10,000 visitors, and what a frantic time the volunteers had. We certainly met our goal of helping to engage the community with the Arboretum! And with the recent rain and preparations by the Project Team, the whole site was looking wonderful. There are many, many people whom we should thank and I have provided a list in this newsletter.

I would especially like to thank John Mackay (Chair of the Governing Board and Patron of the Friends) for organising Ian MacNamara to broadcast his program 'Australia All Over' from the Arboretum, Sherry McArdle-English, our Promotion Manager, for her untiring work building up to, and during the day, all the volunteers on the day, the personnel in the Department of Land and Property Services Arboretum Project Team, Tom Tom Events, the volunteer speakers in the tent and in the forests, the SES, Scouts and Girl Guides, STEP and our sponsors and all the conservation, sustainability and bio-diversity exhibitors and participants. I also know Friends' volunteers were involved in more than one location on the day including assisting with the National Bonsai and Penjing Collection of Australia (which was open as usual in Commonwealth Park). We were all very busy indeed.

How wonderful it was to have the booklet produced by the Department for all the visitors. The booklet was very

well received by the visitors and volunteers alike. Have you seen it yet? I will bring additional copies to our next meeting for those who missed out.

In terms of fundraising we raised just under \$3,000 from gold coin donations and concession donations. Thanks to the tireless efforts from our collectors. One third of this will go to Carers ACT.

And the very next day you would have noticed the ground works started for the Visitors Centre and related works including the Bonsai pavilion. The progress is great to see.

On another matter, we have made good progress with sorting out the requirements for tax deductibility and have been assisted in this by our pro-bono lawyers, Snedden Hall and Gallop. Many thanks to them.

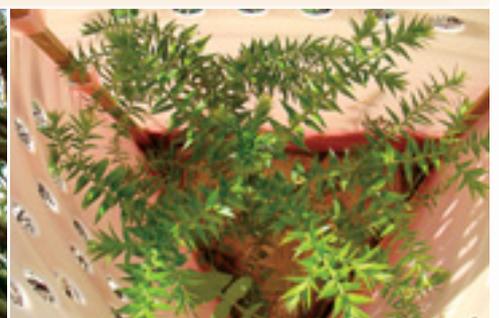
There will need to be changes to our Constitution to facilitate the establishment of the necessary Public Fund and also to address the change of name of the Arboretum. As required by our current Constitution, I will be writing to all members to explain the changes and the proposed changes will be addressed on the agenda for our Annual General Meeting which is on 18 May 2010 (to be held in the middle hall, Reid Uniting Church, Coranderrk St, Reid commencing at 5.30pm).

Did you miss out on a bus tour around the Arboretum during the Festival? Our monthly bus tours, sponsored by Murrays Buses, commenced on 11 April – contact me to make a booking – the full schedule of tours is in the newsletter.

Looking forward to seeing you at the AGM and always looking forward to seeing you at the Arboretum!

Jocelyn Plovits

Chair





FESTIVAL OF THE FORESTS 2010

by Jocelyn Plovits

Our grateful thanks go to the many people who made the Festival possible.

There was a packed program with exhibits, concessions, kites, childrens activities and of course the main attractions, the early morning walk (with over 130 people), the tree talks and the guided bus tours. As you can see from the pictures there was a lot for visitors to do and there were a lot of people.

Our thanks to Jeanette Phillips for a moving Welcome to Country and to the Chief Minister for opening the Festival.

- Special thanks go to the Friends volunteers at the Festival: Anne Bayliss, Grant and Margaret Bowie, Margaret and Max Bourke, Victoria and Partrick Callioni, Del Da Costa, Alan Franklin, Jill Freeman, Shareen Gleeson, Brigit Godwin, Roger Hnatiuk, Ross Lapworth, Barbara Mach, John and Collette Mackay, Sherry McArdle-English, Marie Mannion, Linda Muldoon, Barry Nash, Jocelyn Plovits, Juli Pool, Marelle and Rob Rawson, Lorraine and Frank Stevens, Hans Van Haalen, Jennie Widdowson.
- Tree speakers: Cedric Bryant, Adam Burgess, Tony Fearnside, Stan Goodhill, Emma Halloway, Michael Kidd, Peter Kanowski, Ian MacArthur, Cathy Robertson, David Shorthouse, Steve Thomas
- The Birragai Team: Julie Murkins, Bob Wright and Sally Prowse
- Walk for Heart: Bill Caddy
- and the wonderful Girl Guides and Scouts without whom the Passport to the Forests activity would not have been possible.

Our sponsors for the day provided great support and our continued thanks go to ACTEWAGL, Yarralumla Nursery and Supabarn who helped make the day go with a swing.

If I have missed anyone, firstly my apologies, but let me know and you will be acknowledged in the next newsletter. It is important that all our members can congratulate the volunteers for undertaking training and the work on the day.

There were up to 10,000 visitors on the day, more than half taking a guided bus tour. It really made a difference having on-site (albeit off road) parking and I suspect an attraction like Ian Macnamara helped too!

Where to next? Will we have more visitors next year? I asked the volunteers for feedback and all were very satisfied with their involvement, and many had suggestions for improvements for next year. Remember that it is a fun day for volunteers and the more volunteers the less the load on any particular person. Hope you will volunteer next year.

STEP AT THE FESTIVAL

STEP participated in the second Festival of the Forests hosted by the Friends of the National Arboretum.

STEP held a range of fun activities including a raffle, a tree talk and planting, a presentation on the importance of conservation of biodiversity for the southern tablelands region (including plants and posters), conversations with visitors and horticulturalists, and a question and answer session with ecological experts.

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The raffle winners were:

Jenny Watson – first prize -

\$60.00 worth of local provenance species plants.

Stephen and Sam Ning – second prize -

\$30.00 worth of plants.

Peter Yarit – third prize -

\$15.00 worth of plants.

Thanks to Seeds and Plants Australia for donating the prizes.

It was a great festival and we look forward to the next one!



Greg Bayliss ABC radio celebrity interviews David Shorthouse, well known environmental scientist and Vice President of STEP Inc about the selection of iconic eucalypts planted on STEP Block 100 at the National Arboretum



Planting *Eucalyptus dives* at the STEP site on 14 March.



Cathy Robertson and Tony Lawson at the STEP exhibit.

Photos by Linda Muldoon



The Friends would like to acknowledge all those who visited the Festival of the Forest 2010 and contributed to a wonderful day. The reported number attending the day was 10,000 which was a very exciting outcome.



The feedback was very positive with people arriving from 5.30am to experience the sounds of Macca Across Australia from the Events Terrace.

The family fun walk was a huge success.

The event was officially opened by the Chief Minister Jon Stanhope, who was followed by our Patron John Mackay



People enjoyed the hop on hop off bus tours and speakers tent, while children enthusiastically worked on their Passport activity and participated in fun games.

Lucky participants helped plant trees in the STEP block



We would like to thank all our wonderful sponsors who have supported us throughout the year, and the exhibitors who provided a wealth of additional information to an already full and informative day.



Judy McColl and John Mackay with the first tree handed out before dawn

The Friends provided 100 trees and plants as gifts to the first 100 people to visit Ian MacNamara. Judy McColl of Narrabunda received the first tree. The Friends provided another 50 trees and t-shirts which were handed out by Rob De Castella as barrel prizes to those participating in the organised early morning walk.



FOREST TALK

SPONSORED BUS TOURS

Murrays Buses have agreed to provide sponsored bus tours on the following dates. Please contact Jocelyn if you wish to book a tour. Bookings essential and places are limited.

ALL TOURS ARE ON SUNDAYS

9 May 2010

13 June 2010

11 July 2010

8 August 2010

12 September 2010

None in October due to Floriade

14 November 2010

12 December 2010

9 Jan 2011

13 February 2011

None in March 2011 due to the

Festival of the Forests 2011

HISTORICAL RECORDS OF THE ARBORETUM

A sub-group of the Friends was recently formed, with the aim of collecting and maintaining a record of historical material pertaining to the Arboretum.

Some roles of the sub-group have been suggested:

1. To be a focal point for assembling appropriate archival material to be used by the Friends of the NAC in displays, exhibitions, promotions or publications;
2. To identify, collect and/or record the location of relevant existing historical and archival material pertaining to the Arboretum in particular and/or to the site in general, in any media format;
3. To tie the site into the cultural history of the ACT, and particularly link it to the Griffin and Weston histories; and
4. To act as curator for the records of the Friends of the NAC, as they develop.

Interested members can join the sub-group at a Friends' meeting, or by contacting either:

- Max Bourke (max@mebourke.com); or
- Barry Nash (bnash@home.com.au).

PROGRESS WITH PLANTING

Did you know that between 2005 and the end of 2009 approximately 22,600 trees were planted in 41 forest lots and 26 forests will be planted in 2010?

FRIENDS' FOREST

We are getting closer to the time when we can assist with planting the Friends' Forest. The Chief Minister and the Governing Board have all approved the concept. We are in negotiations with the Department to plant Lot 96 with *Allocasuarina verticillata* (drooping she oak).

The Friends supported this particular planting because it also provides food for the Glossy Black Cockatoo which needs support in the ACT. And, as you can see from the picture, the trees are already growing ready for planting.



Photo by Adam Burgess

FRIENDS' GIFT

The Friends have commenced fund raising to make a significant gift to the Arboretum. The amount raised will probably dictate the nature of the gift. The Council is exploring with the Department and the designers what opportunities there are for placement of some kind of object near the Visitors Centre. If you have any suggestions, please e-mail or write to your Council – all ideas welcome!



TREES IN FOCUS

THE BUNYA PINE: PRICKLY, PREHISTORIC AND PRODUCTIVE

By Linda Muldoon

INTRODUCTION

I must confess to being smitten by *Araucaria bidwillii* (bunya pine) about 18 months ago when I saw one growing in the grounds of a two-storey 1830s homestead in Longford, Tasmania. The long radiating branches seemed to stretch on forever before terminating in clusters of branchlets and although there are doubtless broader trees, most rely on having branches off branches in diminishing sizes to achieve their dimensions. I later learned that this tree is not typical in its growth shape, but I was hooked, and delighted when I discovered that this species was being included in our Arboretum. Our bunya pine forest was planted in 2009 and occupies Lot 60.

I'm a member of Dr Roger Hnatiuk's team of Friends who are researching profiles of the species within our forests, which involves writing descriptions and finding photos. When Roger asked if we had any particular species of interest, I put my hand up for this one, little knowing that the quest would compel me to drive over 1000km to Bunya Mountains National Park to take photos and meet the native bunyas. But I'm still smitten and walking among these giant trees was a labour of love.

The following is my potted description of this species which I began by researching on the internet, but then adjusted because of my personal observations. Later I include what I've learned about bunya nuts and describe how the trees grow differently in different conditions.

ARAUCARIA BIDWILLII **BUNYA PINE**

This mighty dark green conifer is native to south-eastern and northern Queensland where it dates back to prehistoric times. It reaches 30-50m in height and usually has a single straight trunk to 1.5m in diameter, though occasionally trees develop twin trunks. The bark is dark grey, heavily textured, and some trunks develop notches and/or protrusions where earlier branches have fallen.

Mature trees have a distinctive dome-shaped canopy which rises above other rainforest species and measures 10m or more in diameter, with long evenly-spaced branches arranged in whorls. Leaves are lance-shaped and very sharply pointed, 20-50mm long and 5-10mm wide, spiralling around branchlets at the ends of the branches. New leaves on the lower branches are a very bright green.

Male and female cones form on the same tree. Cylindrical male cones begin to appear on the lower branches early in the year and mature for pollen release in September/October, by which time they are 100-200mm long, 15mm in diameter and dark red in colour. The fertile female cones then take 17 months to develop in the upper canopy. When fully mature they are the largest cone of any species in the world, football-sized (220 x 300mm) and weigh up to 10kg each.

Each mature tree produces 20-50 of these cones. They are still green when ripe and fall between December and March but this cycle of major production is usually only repeated once every three years, although a few cones are still produced in the intervening years. Each cone contains 50-100 sandy-coloured edible nuts that are about 50mm long, oval in shape with a pointed end. The nuts in one cone vary in diameter but have an average weight of 10g, including their thin but very tough outer shells.

Historically, at three-year intervals, Aboriginal tribes would travel long distances to the Bunya Mountains to join the local custodians for the 'bonye bonye' festival and to participate in the great harvest of the nutritious nuts. This was a tradition of great significance to Aborigines who considered the bunya pine to be sacred, however no further festivals took place after 1875 because extensive logging decimated the forest and expanding European settlement prevented Aboriginal migration through traditional pathways. In 1908 concern over the fate of the trees led to the creation of the Bunya Mountains National Park which now protects the world's largest stand of bunya pines, with some trees believed to be more than 600 years old.

Looking west from Mt Mowbullian





Male cones developing on the branchlets in early February



The Bunya Mountains are located in south-east Queensland, 110km north-west of Toowoomba and 60km south of Kingaroy. The average annual rainfall is 1050mm at elevations of 800-1100m and the temperature ranges from zero to 30°C. Most days begin with the mountains shrouded in mist, keeping the rich volcanic soil moist. Despite these unique and favourable growing conditions, the bunya has proven to be tolerant of many other soils, climates and locations, suggesting that it was probably widespread in the days of the dinosaurs.

Bunya offers superb timber quality: pale cream with a tinge of pink, light weight with an even texture, and therefore it was highly sought after. Today small plantations supply the bush tucker market with bunya nuts and the timber is in demand for making musical instruments and guitar soundboards.



BOUNTIFUL BUNYA NUTS

I wasn't able to find any satisfactory photos of the enormous bunya pine cones on the internet so I hoped I would find one to photograph. On my arrival at the village of Dandabah (adjacent to Bunya Mountains National Park) I told the people at Bunya Mountains



Accommodation Centre that I was on a mission and they sent someone out to find a fresh cone from their grounds and subsequently gave me one, so that part was easy and ownership of this cone enabled me to learn more.

I brought my cone back to Canberra but the core began to shrink during the journey and the bracts containing the nuts started coming adrift. The nuts were easy to remove from the bracts and I stored them in the fridge while reading up about processing methods. The nut shells are pliable and incredibly tough, so nut crackers are not an option for opening them but some sources recommend using tin snips. The raw kernels are white (and delicious), whereas cooked kernels are cream (whether you boil them or roast them), but in truth opening any of them is hard work. The Aborigines ate them raw or roasted but also buried the nuts in moist places to induce the crisp and sweet tubers to emerge from the pointed ends of the nuts. This increases the volume of the food and splits the shells.

Fresh nuts consist of 40% complex carbohydrate with low GI, 9% protein, 2% unsaturated fat, 0.2% potassium, 0.06% magnesium plus other minerals, water, dietary fibre and vitamins. The vitamin content is not fully documented but Aborigines were observed to have improved health during the bunya festivals.

I induced the tuberous roots by storing some of the nuts between sheets of moist cotton wadding at room temperature and they grew at a rapid rate. Observing



Skyline from Dandabah entrance to Bunya Mountains National Park

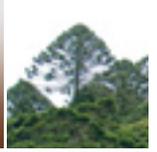
all this pent up energy on the move, I sensed that they wanted to be trees, not tucker, so I potted them up and they quickly developed tubers about 30mm down from the nuts (see photo bottom left). Roots then emerged from the tubers, though above ground there was little change except that the once fleshy root emerging from the nut had developed a bark-like covering. Then this connecting part began to lengthen and I noticed partial withdrawal of a greenish shoot from the nut, probably due to shrinkage of any material left within. The next development came just 11 weeks after the cone fell from the tree and just in time to give this story a happy ending. The first very tiny shoots emerged, rising vertically from the necks of the tubers. The shoot below measures 15mm.

Trees take about 15 years to begin producing cones, so we have quite a while to contemplate our first Canberra bunya festival!



AN ICONIC TREE OF PEACE

In 2001 Aboriginal people and others performed a ceremonial planting of a bunya pine in Peace Park, adjacent to the National Library in Canberra, as an 'International Tree of Peace', reflecting the significance of bunya ceremonies in creating peaceful relations between local groups. Currently it's about 4m tall and thriving.



DIFFERENT CONDITIONS CREATE DIFFERENT TREES

There's a big difference between the tree at Longford (below) and the trees in Bunya Mountains National Park (bottom right) and I've read theories that southerly latitudes create stouter trees.

In the village of Dandabah a young bunya tree, about 3m tall, is pyramid-shaped, about as wide as it is tall, with a mass of branchlets from top to bottom. In the rainforest, just a few hundred metres away, a tree of the same height has a very apparent straight trunk, the lower branches have already died off and are being shed. All its energy is going into competing with the other trees to get to the light. Its canopy width is about a third of its height.

There is a wide variation in the proportions of the older village trees too, with some fairly mature trees retaining their lower branches so that they drag on the ground, while others have followed the more typical growth pattern of losing their original lower branches and replacing them with shorter branches which tend to hang down. Space and light also enable bunyas to produce magnificent festoons of bright green branchlets at the ends of their lower branches (see photo).



REFERENCES

www.conifers.org/ar/ar/bidwillii (The Gymnosperm Database)
www.derm.qld.gov.au/parks/bunya-mountains/culture
www.dpi.qld.gov.au/26_6833
www.ausbushfoods.com

This homestead at Longford, Tasmania, dates back to the 1830s. Bunya pines became fashionable and featured in the grounds of many grand Australian properties throughout the 1800s.



THE NATIONAL BONSAI AND PENJING COLLECTION OF AUSTRALIA

By Lisa Kanis 28 January 2010

Entering the airy shelter of the collection is always an adventure and a thrill, especially when you haven't seen the trees for a while. Last time I visited was during Floriade, now we are in January.

The Atlantic cedar at the entry, on the left, has been restyled in the meantime and the trunk and branch lines of this *Literati* are much more dramatic than they used to be! Grant still has long term plans for the tree, but, as he says, "it's coming along quite well".

Straight ahead the imposing Montezuma cypress group is fully in leaf now, crowning the classical design with its rich feathery foliage; while one can just see behind it the delicate crowns of the Melaleuca forest. What a lovely contrast!

Even from this distance, one can't miss the tall *Angophora*, that great rarity in the bonsai world. In October it was already a striking tree, but now it is also

frankly beautiful. Grant and the volunteers have done a lot of work on the branching and foliage, which are now both tidier and more luxurious, complementing the curved, smooth trunk. The evocation of a gum in the wild is just perfect. Nowhere in the world, except Australia, would one find a bonsai like that!

The deciduous trees are in full glory and I marvel at the healthy emerald foliage of the Japanese and trident maples. As a complete contrast to the so-Australian *Angophora*, I see the European beech forest for the first time in its summer apparel. The leaves shine in the sun; the trunks are surrounded by moss and the whole group sits on a magnificent, thin, stone slab.

I wander around, stopping at my favourites, which all are growing beautifully; and now and then I talk with some of the visitors. It's always great to see how much they appreciate the collection. There has to be some recompense for the huge amount of work that is done to keep it in its impeccable state, and I am glad for Grant and all the volunteers that the visitors express their pleasure so often and so freely.



Photo by Grant Bowie



MEMBERSHIP IS DUE

Have you paid your membership fees? Please forward your payment as outlined in the application page. Remember your fees are vital as they are used to run the administration of the Friends - all fees and donations are welcome.

UPDATE YOUR DETAILS

We have noticed that a number of email addresses and street addresses are out of date, so if you have recently changed your address or email address, please email Colette Mackay, our Secretary on j-cmackay@hotmail.com.au with your new details.

FRIENDS of the CANBERRA INTERNATIONAL ARBORETUM and GARDENS Inc.

Membership Application Form

Yes, I/we wish to become a Friend(s) of the Canberra International Arboretum and Gardens Inc.

1. Title..... First Name.....Last Name

2. Title..... First Name.....Last Name

Address.....

.....Postcode

Tel (h)(w)

e-mail.....

Membership arrangements (please indicate)

Contributing Friend.....	Single \$25	Association or Club.....	\$50
Household	\$30	Corporate Friend	\$2000
Contributing Concession	\$10		<small>not registered for GST</small>

Payment details for contributing members: Cash Cheque

Cheques payable to the Friends of the Canberra International Arboretum and Gardens Inc.

\$.....

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