

Greetings dear Friends

Are you wondering what to do over the holiday period? Look no further than the National Arboretum Canberra, as there are always activities to suit your whole family and your visitors to Canberra. The Friends' and the Arboretum websites will help you to choose an activity.

The Pod Playground is a very popular venue for children, and the new walking/cycling trails, launched by Minister Shane Rattenbury MLA on 2 November, are an ideal activity for those wishing to 'do their own thing' and they also provide easy access to points of interest (see the trails map on page 2).

Our knowledgeable Arboretum Guides are ready to take you on tours and explain the myriad of interesting features that make up this remarkable place.

Congratulations to our recently trained and graduated Guides, many of whom are already on the roster.

The year has sped past and the last quarter has been particularly busy at the Arboretum, with many events occurring during November.

In the last Friends' Talk Series event, former ACT Chief Minister, Rosemary Follett AO, reminisced about the early days in the development of the Arboretum and Dr Roger Hnatiuk revealed findings from the Forest Stocktake undertaken by his team of Friends' volunteers in 2014. The stocktake was always going to be a challenge, due to widely varying planting patterns in each forest. However, Roger delights in this exquisite feature of our unique Arboretum and shared his

discoveries of some of the 'hidden' planting patterns with us. Friends' talks will continue in 2016 but will become 'Friends' Seasonal Talks'.

Working Bees have continued each Tuesday and Thursday, under the guidance of the Arboretum's horticultural staff and many interesting and varied tasks have been completed.

We welcomed our new Parking Pass Co-ordinator, Sandy Linsley, following the retirement of Annette Lock. Annette, we thank you for the considerable work you undertook in this role previously, and we are very grateful to you.

On 9 November, we witnessed the first sod-turning for Mununja—the Butterfly Garden, to be established in the Gallery of Gardens (see story, page 10).

Their Royal Highnesses, The Prince of Wales and The Duchess of Cornwall, visited the Arboretum on 11 November, when they were primarily in Canberra for the Remembrance Day ceremony at the Australian War Memorial. Several members of the Friends were present to welcome the royal couple before they each planted a *Quercus palustris* 'Freefall' (pin oak) (see page 11). These two trees are the first of what will become an avenue of pin oaks along the Events Terrace. It was quite remarkable to watch preparations by the Arboretum staff prior to an occasion like this. Even the shiny silver spades got an extra polish!

The Friends Council and invited guests participated in a Strategic Planning Day on 25 November, facilitated by Peter Gordon. Our new Strategic Plan will evolve over the next few months as sub-committees report back. Details will be posted on our website in due course.

And while you are Christmas shopping, please remember that *The Arboretum Book*, *The 2016 Arboretum Calendar*, and Gift Membership of the Friends are all on offer—see *www.arboretumcanberra.org.au*.

Friends, whatever volunteering role you have undertaken during 2015, thank you for your generous contribution to this beautiful Arboretum. We are estimated to have contributed almost 20,000 volunteer hours in a year! Rest, and enjoy the break. I look forward to working with you again in 2016.

See you there—at the Arboretum!

Trish Keller OAM Chair

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New walking trails officially open

BY LINDA MULDOON

Arboretum walking trails A

Himalayan Cedar Trail

Dairy Farmers Hill Circuit

Cork Oaks Trail

STEP Circuit

On 2 November 2015 Shane Rattenbury MLA officially opened the new 'national-park-style' walking/cycling trails that had been several months in the making. The red ribbon was cut by Shane, together with Trish Keller OAM, Chair of the Friends.

bit of engineering, due to the very steep terrain. This area was previously almost inaccessible to walkers but a hairpin bend over an elevated area and deep cutting into the hill on the high side of the track has created an easy, winding path, enabling visitors to pass through forests that were largely hidden from view.

Just imagine how walking this trail will be when the Guadalupe palms in Forest 59, the South Esk pines in Forest 48, and the *duprezianas* in Forest 40 are maturing. Currently the palms are only small saplings in tree guards but some of them are doing very well.



Shane Rattenbury, ACT Minister for Territitory and Municipal Services, addressing the crowd, prior to the ribbon being cut.



Part of the crowd watching on as the ribbon is cut.

Main entrance

Another trail links the mesa oaks, STEP Forest 20, the Buchan blues, and the Persian ironwoods. Then you can pass through the Chinese tulip trees and Californian fan palms to the Himalayan cedars and the forests beyond, until you reach the cork oaks. Enjoy exploring!



After the ceremony, several of us walked the new circuit around Dairy Farmers Hill and we were very favourably impressed. Most of us were already familiar with the trail on the lake side of hill, but the trail extending around the back of the hill is more recent and has taken quite a



Above: The trail on the lake side of Dairy Farmers Hill.

Left: The elevated hairpin bend provides wonderful views to the south-west.

The Tree of Knowledge

BY ROB EY

Earlier this year, my wife Carol and I travelled to southwest Queensland and stopped for the night in Barcaldine, specifically to see the sculpture that had replaced the ill-fated Tree of Knowledge.

With just a couple of hours to spare in the afternoon, we decided to visit the Australian Workers Heritage Centre (actually quite a bit more interesting than it sounds), which is a museum in the centre of town. One of the museum's attractions is the the 'young un', a tree that is directly descended from the original Tree of Knowledge. We were surprised by the sign beside the tree which stated that this was the only direct descendant, and wondered how this could be when the tree that Prime Minister Julia Gillard planted in the Arboretum's Central Valley in April 2011, was also a direct descendant of this tree. I knew this and, as a guide, I had been telling this to visitors for the past two years. My initial inclination was to teach these Queenslanders a thing or two.

On returning to Canberra, I discussed the matter with a few long-term members of the Friends. As part of her guide training, Colette Mackay had received a lot of detailed information from John Oostenbrink, who was an excellent source, for he was from the Queensland Department of Agriculture and had propagated the Arboretum's tree. A potted version (excuse the pun) of the descendants of the Tree of Knowledge, as detailed in John's paper, follows.

In 1991, this iconic tree was in average health and it was decided that attempts should be made to produce

The Tree of Knowledge in Barcaldine in the late 1980s.





The Tree of Knowledge at Barcaldine SOURCE: QUEI Railway Station in 1938.

SOURCE: QUEENSLAND STATE ARCHIVES

clones. However, root disturbance caused by the removal of bitumen around the tree prompted the production of a sucker. This was removed and potted, and, over the next five years, various attempts to strike cuttings were undertaken by forestry and agricultural department officers, but all failed and the project was abandoned. The potted sucker was left at the works depot in Gympie.

John commenced work at the Gympie depot in 1999 and saw the potted sucker there, now in poor condition due to neglect, and decided to nurse it back to health. By 2005, it was a fine 4 metre high specimen, again attracting the attention of departmental officials. It had acquired the name 'young un' and a decision was made to return it to Barcaldine. It was planted by the Hon. Henry Palaszczuk, Member of the Queensland Legislative Assembly (and father of Annastacia Palaszczuk, the current Queensland Premier) on 2 May 2005. Before the move, John took cuttings and grafts of the tree but all failed.

The original Tree of Knowledge was poisoned in an act

of vandalism in 2006 and this prompted further attempts to produce clones of the 'young un'. Prior to this, little work had been done in propagating Corymbia aparrerinja (ghost gum). John pursued a number of different methods, but his first success came when he grafted some scion material (leafy twigs) from the 'young un' onto rootstock of a hybrid from Corymbia torelliana and Corymbia variegata. Two grafts took -success at last after 15 years of attempts! These trees provided the material for John to undertake a process called serial grafting, which involves making six consecutive generations

of grafts onto juvenile

The 'young un' in Barcaldine, July 2015 P

PHOTO: ROB FY



rootstock. He hoped to transmit the juvenile rooting potential from the seedling rootstock to the scion by this method and to then set cuttings in an attempt to produce a clone of the tree.

After 18 months, he had produced three 'generations' of grafted trees and ten successful grafts from 363 attempts. The success rate in the next three 'generations' was much better and was completed in another six months, with 75 successes from 106 attempts. Each successive generation was producing scion material with progressively more juvenile form. In January 2008, John started setting cuttings of juvenile material but over the following month only 22 cuttings set from of a total of 296 attempts. Further attempts failed to produce viable cuttings as the rootstock had matured and lost the potential for rooting.

John presented Queensland Premier Anna Bligh with a clone in Barcaldine in May 2009 and he gave the remaining clones to the Barcaldine shire council. It is one of those that Julia Gillard planted in the Central Valley in April 2011.

So in summary the 'young un' in Barcaldine is a sucker of the original tree, as claimed by the good folk of Barcaldine. Our Arboretum tree is a clone of the Tree of Knowledge, produced from very long and tedious propagation techniques.

Thanks to Colette Mackay for her original research on this topic, for sharing it with me and for her assistance in preparing this article.

Statistics for our Tree of Knowledge

The Tree Monitoring sub-group has measured our tree, located near the top of the Central Valley, four times between September 2011 and November 2015. The first measurement recorded a height of 2.1 m and a trunk diameter of 0.83 cm. The most recent measurement recorded a height of 3.65 m and a trunk diameter of 5.2 cm.

If you are going to south-west Queensland, do visit both the 'young-un' and the impressive sculpture built as a memorial to the original Tree of Knowledge in the main street of Barcaldine.

The Tree of Knowledge monument (below) was opened by Premier Anna Bligh on 2 May, 2009. Designed by m3architecture and Brian Harper, it is a cube-like structure simulating the tree's canopy, made up of 3600 hanging timber slats, with the root ball visible through a glass floor. Night time viewing is recommended.

PHOTO: ROB EY



The heritage-listed Tree of Knowledge, Barcaldine

The Tree of Knowledge in Barcaldine was included on the National Heritage List on 26 January 2006, just three months before its poisoning in April 2006.

The 10-metre, 150-year-old tree was seen as a symbol of an important time in Australia's political development. It became a meeting place for shearers during their unsuccessful strike of 1891. During that strike, as well as the maritime strike of 1890, a crucial and historical connection was forged between unions and what was to become the Australian Labor Party (ALP). The strike committee issued its final manifesto on 20 June 1891, calling for unionists to register on the electoral rolls.

On losing the strike, the unions and others in Queensland formed Labour Electoral Leagues, which later became the Labour Party and eventually the ALP. In 1892, Tommy Ryan, an Australian shearer, became the first 'Labour' representative in any government anywhere in the world.

The Tree of Knowledge symbolised the culmination in Queensland of social tensions that, by the 1880s, were widespread in the pastoral districts of the eastern colonies. The attitude of squatters and property owners, the introduction of mechanical shearing and the influence of labour unions all played a part. The site will always remain an important place of National Heritage.

Source: https://environment.gov.au/heritage/places/national/tree

Another encore for 'Voices in the Forest'

BY LINDA MULDOON

Following heavy rain during the 2014 concert, it wasn't surprising that the audience was a little diminished on 21 November 2015.

We, the Friends, played our part as volunteers in many capacities, from numbering seats at set up and denumbering seats on 22 November, to selling programs, helping at ACTION bus stops, helping with mini bus queues, leading guided Arboretum walks, helping people with limited mobility, helping with children's activities in the Margaret Whitlam Pavilion, working as Event Terrace welcoming hosts, helping many people find their seats (whether that was an official job for the Friends, or not), and yes, photographing the event—evidence herewith. This year we also sought permission to sell Friends' raffle tickets and apparently did quite a roaring trade.

Friends' opinions of the concert vary widely. The serious opera lovers were very happy, whereas those that liked all the choral performances of previous years were disappointed that this did not occur until the third act. The choirs do bring a strong sense of community—and, no doubt, a large crowd of parents and relatives to the concerts!

Once again, Alex Sloan did a wonderful job as MC and played quite a pivotal role, introducing and describing the arias and reading translations of the words.

Act 1 began with nine arias from Baroque Opera (by Handel, Gluck, Purcell, and Monteverdi), delivered by two familiar local talents: Louise Page OAM (soprano) and Christine Wilson (mezzo-soprano) who sang four duets and five solos. Louise and Christina have become regulars at *Voices in the Forest* concerts and they never





All smiles at raffle headquarters.



Two of our Friends near the gate, working as progam sellers.

fail to impress. Act 1 ended with the three major 'stars' of the concert: Australian Cheryl Barker AO, Diego Torre from Mexico, and José Carbó, Argentinian-born Australian, each delivering delightful solos.

Australian soprano Cheryl Barker AO is a very successful international opera star. Conductor Robert Peelman is in the background.





Baritone José Carbó (left) in a duet with tenor Diego Torre.



Above: Alex Sloan MC, doing the thing she does so well. Above right: Local talents Rohan Thatcher, Louise Page and Christina Wilson.

Act 2 featured scenes from Puccini's *La Bohème* and we saw local baritone Rohan Thatcher join the cast.

Act 3 featured 'opera favourites' and other songs with The Voices in the Forest Chorus joining the cast for some of these. I found José Carbó to be particularly charming and on several occasions he spoke to the audience between performances, adding to the experience. As darkness fell, the lighting became very colourful and dramatic and plant motifs were projected onto the backdrop. The stage structure was square rather than arched (as in previous years), presenting an opportunity for greater visual impact.

The rain stayed away but it did turn quite cold, causing some members of the audience to depart well before the finale.





Cheryl Barker performing a solo in Act 3. This photo shows the square corners of the 2015 stage set-up.

PHOTOS BY AUTHOR



Everyone on stage for the finale.



The legendary oriental plane tree

BY MARELLE RAWSON

TALL TREE STORIES— STORIES ABOUT TALL TREES? OR TALL STORIES ABOUT TREES?

This article, an extract from notes compiled for my long walk 'Tall Tree Stories' on 15 November, is about the fabulous oriental plane trees, *Platanus orientalis*—their legendary status; their journey from the wild to cultivation; and their story so far at the Arboretum.

Legendary status

Legend tells us that Hippocrates, the 'Father of Medicine', sat under a great plane tree as he taught medicine to his disciples in the 5th century BCE, and that if you visit the Greek Island of Kos, you can see that very tree. To be more precise, you can see the ruins of that very tree, with its trunk enclosed in a steel cage. Thomas Packenham descibes it as 'battered but unbowed', and concludes that the present trunk could be from a fourth generation of trees which have grown from the original roots of the great healer's tree.

Handel's famous *Largo* is an ode to a plane tree and its shade. The aria is sung by Xerxes in an opera of the same name—*Serse*, first performed in 1738. The opera is based on the legend of Xerxes, the King of Persia, who was marching to invade Greece in 470 BCE when he spied and, more importantly, fell in love with, a magnificent oriental plane tree. He showered it with gold adornments and allocated it a personal guard! In 1844, the famous and influential garden writer, JC Loudon, wrote that Xerxes' infatuation had lasted several days and that he became 'entirely oblivious to his army'. The Greeks later defeated the Persian King's army and the loss was attributed to the delay and to Xerxes' distracted mind.

Legendary tree on the Island of Kos.

PHOTO: STEVEN FRUITSMAAK



Cultivation

The oriental plane tree was much valued across regions and empires over centuries. For example, in the second half of the 14th century, when the military leader Timur (known historically as Tamerlane) established Samarkand as the cultural centre of Central Asia, he constructed a number of magnificent palaces and surrounded the city with spacious parks—one of which was the 'Plane Tree Garden'. These beautiful trees came to particular prominence in the classical gardens of Persia where they provided welcome shade. They are depicted in illuminated manuscripts and Persian rugs.

The first great wave of plant introductions to western Europe came from the Turkish Empire in the 16th century when Sulëyman the Magnificent was Sultan. After his ascendency in 1520, Sulëyman's court at Constantinopal became a magnet for European ambassadors seeking treasures to send back to their homelands. One unique treasure was found by OG de Busbecq who had been sent from Vienna by Ferdinand I. It was a copy of a manuscript (probably made about 512) which described plants used by ancient, classical apothecaries. After seven years of negotiation, the manuscript was purchased and taken to Europe where it caused a sensation.

Soon, explorers came to Constantinopal to see the plants for themselves and to take specimens back to Europe. One such explorer was Pierre Belon (1517-64), a doctor and apothecary, whose ship was overrun by pirates en route to Constantinopal. He was set loose in a small boat and managed to sail to Crete where his memoirs noted that '... they often go a-fishing, their vessels or boats being cut without great difficulty of the thick trunks of plane trees . . . '. Ever resourceful, Belon managed to reach his destination and continue his adventures. Finally (to cut a long story short), he returned to France with material to propagate *Platanus* orientalis. In the late 1540s, it flourished in Europe for the first time in the garden of his patron, along with his other botanic treasures which included cork oak and white oleander.

However, its distribution to other gardens across Europe seems to have been slow. According to Pierre Daubenton (in an encyclopaedia published in Paris in 1765), it was thought that plane trees were not planted in England until the early 1600s when Sir Francis Bacon planted them in his estate at Verulamium.

The London plane tree, which is so common in our city streets and parks, is a cross between *P. orientalis* and *P. occidentalis* from North America. It was 'developed' in England in the mid to late 1600s, with credit given to Oxford Botanic Garden, although it is likely that the London plane tree first grew in the garden of the Tradescant family who had been growing *P. orientalis* since 1633. John Tradescant the Younger returned from his first trip to Virginia, USA, in about 1637 with propagating material from the American sycamore (*P. occidentalis*). Some years later they noticed vigorous hybridised seedlings and probably gave some plants to Jacob Bobart at the Oxford Botanic Gardens.





A row of mature oriental plane trees at the old Saint-Denis-en-Broqueroie abbey in Belgium

PHOTOS: Jean-Pol GRANDMONT

At Royal Botanic Gardens Kew, an oriental plane tree is one of the 'Old Lions' which are five extant original trees, planted in 1762. During the 1800s, oriental plane trees were planted in many now historic parks across Europe. In Paris, magnificent specimens can be seen in Parc de Buttes-Chaumont and Parc Monceau, both probably dating from 1860s to 70s. A promenade of oriental plane trees in Orto Botanico di Napoli are thought to date back to a similar time.

Australian cultivation

The Colonial Plants Database (hosted by Historic Houses Trust of NSW) contains over 11,000 plants available pre-1860 in New South Wales nurseries or key gardens. *P. orientalis* appears in:

- 1828 Catalogue of plants cultivated in Botanical Garden, Sydney;
- 1851 Catalogue of plants cultivated at Darling Nursery, Sydney; and
- 1857 Catalogue of plants cultivated at Camden Park, New South Wales.

So from 1851, it would appear that these trees were available for sale in the New South Wales colony and elsewhere. Early wealthy colonial families took a very keen interest in growing plants from all over the world. From the 1870s, 'mountain' areas such as Mt Macedon (in Victoria) and Mt Wilson (in the Blue Mountains west of Sydney) became popular summer retreats and provided better conditions than the coast for some exotic plants. For example, mature specimens of *P. orientalis* can be see in Mt Wilson along with other Arboretum species such as monkey puzzle trees (*Araucaria araucana*), the dove tree (*Davidia involucrata*), the giant sequoia (*Sequoiadendron giganteum*), and Persian ironwood (*Parrotia persica*).

The National Trust Register of Significant Trees identifies three *P. orientalis* sites—two in Victoria and one in Tasmania. One of the Victorian sites is a row of trees that were planted at a Leongatha nursery in 1888. They are 24 m tall but their condition is described as 'poor'.

Charles Weston was responsible for the early plantings of *P. orientalis*, across the new Federal Capital. Initial plantings, in 1917, were in Westbourne Woods, followed

by plantings in locations such as Parliament House, RMC Duntroon and the PM's residence, through the 1920s (propagated from locally sourced cuttings or seeds). From 1949, seeds were sourced from overseas, with Lindsay Pryor obtaining seeds from Iraq, Turkey and Jordan in 1953 and later planting seedlings in the southwest corner of Weston Park, Yarralumla.

The Arboretum story to date

Seeds of *P. orientalis* were purchased from the American Forests Historic Tree Program. Seedlings were grown by Yarralumla Nursery at their Pialligo annex (now decommissioned) and planted in Forest 53 in July 2009.

The Friends' Tree Monitoring sub-group has measured the height and trunk diameter of the same sample of 30 trees each year since 2012. By then, the average height was 2.99 m and in February 2015 it had increased to 3.43 m (about 15 per cent taller). Over the same period the trunk diameter (at a height of 1.3 m) increased from 3.8 cm to 5.2 cm (about 40 per cent thicker).

We finished our walk and, as we sat on the grassy slope under the shade of the trees in Forest 53 looking out to the stunning view, we could see that many of the trees had flowers hanging like baubles from the higher branches. We could imagine these glorious trees into the future—their generous canopies casting shade over summer picnics. I, for one, can hardly wait!!

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Platanus orientalisORIENTAL PLANE

BY LINDA MULDOON

Platanus is from Greek Platanos, meaning broad, referring to the the crown of the tree; orientalis is Latin for east, referring to it being the most easterly species known when first described in 1753.

Other common names are eastern plane, platano, *dulb* (Arabic), and *chenar* (Iranian).

These long-lived trees, from the Platanaceae family, occupy Forest 53. They were planted in 2009, in a regular square-grid pattern, and will reach full height by about 2060. The characteristic thick trunks and broad canopies will develop with maturity.

The species is not classified as endangered but is becoming rare in parts of its natural habitat, due to the impacts of agriculture and irrigation when they change the natural flow of water courses.

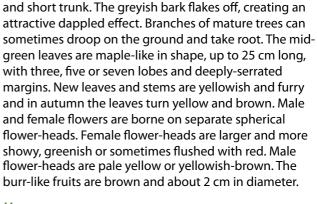
P. orientalis grows in moist soils, along rivers and temporary water courses at the bottoms of slopes. Its native habitat covers a wide area, extending from the eastern Mediterranean to all of the Middle East and the south-eastern provinces of the Euro-Siberian region. Tree numbers have been reduced by felling but ancient trees are now protected.

Characteristics

A large deciduous tree, with a height of 30 m and a spread of 20 m, with a widespread crown

Right: The characteristic maple-like leaf. Below: Oriental plane as a street tree, Campbell, ACT.





Uses

The leaves and bark have been used medicinally and a fabric dye has been made from the twigs and roots. The timber, often called lacewood, is figured and valued for furniture-making. Historically, *P. orientalis* has been a significant tree in many cultures. It is much-valued as a shade-tree in current-day landscaping.

Top: Female flowers and much smaller male flowers on an Arboretum tree in October 2015.

Below: The attractive, dappled bark. PHOTOS BY AUTHOR







Mununja the Butterfly Garden

BY LINDA MULDOON

On 9 November, the Minister for Territory and Municipal Services, Shane Rattenbury MLA, announced the concept for the second garden in the Gallery of Gardens, located on the western edge of the Events Terrace.

The design is based on a dreamtime story of the Ngunawal people who are the Aboriginal custodians of the land occupied by the Arboretum. Legend has it that Manunja was a young Aboriginal girl who changed into a butterfly in order to avoid having to marry the evil Gunga. He possessed great powers and would always prevent her from marrying the man she loved, but with the help of Narja, the good spirit butterfly, Mununja was able to remain near her family and country forever, as a beautiful butterfly.

The layout of the garden uses shapes inspired by butterfly wings. The central lawn allows for open space and a marquee for private events. There will be sitting areas, plenty of shade and links to the surrounding environment. Plants have been selected for their cultural significance and relevance in providing habitat and food sources for butterflies, with an emphasis on those native to the local area.

The story was provided by Tyronne Bell in consultation with the traditional custodians to ensure appropriate depiction of intellectual property.

The Arboretum acknowledged a very generous donation from John and Colette Mackay, which has made construction of the garden possible

The sign which currently marks the site.



Above: Shane, Tyronne, Jack and John. all turning the first sod..

PHOTOS BY AUTHOR

Below: (from left) Colette Mackay, Shane Rattenbury, Tyronne Bell, Jack Cassidy, Jai Bell and John Mackay.





A right royal ceremonial tree planting

Members of the Friends' Council were invited to this event on 11 November; indeed the Friends were very well represented, as children from Giralang Primary School were working in the Canberra Discovery Garden and received considerable royal attention.

The rain that had been so persistent during the earlier Remembrance Day ceremony at the Australian War Memorial, eased for long enough, though we all had our umbrellas at the ready and members of the Woden Valley Youth Choir were covered by plastic ponchos at one stage. Their Royal Highnesses, The Prince of Wales and The Duchess of Cornwall. chatted with and shook the hands of several members of our group before standing near the choir, while ACT Chief Minister, Andrew Barr MLA, spoke about the history and community significance of the Arboretum.

Then they each planted a *Quercus palustris* 'Freefall' (pin oak), the first trees in an avenue of pin oaks planned for the Events Terrace. The choir sung '*Growing Into Me'*, composed specially for the Arboretum. The Royal couple visited the National Bonsai and Penjing Collection of Australia before signing the Visitors Book in the Village Centre.





Left: Prince Charles planted his tree with the help of the Arboretum's Horticulture Manager, Adam Burgess.

Right: Camilla planted her tree with the help of Chief Minister Andrew Barr (with her umbrella at the ready).

Below: The royal couple standing near some of the members of the Woden Valley Youth Choir.

PHOTOS: LINDA MULDOON





FOREST TALK



FRIENDS' END OF YEAR EVENT IN THE HIMALAYAN CEDARS

As you can see from the photo above, taken by lan Haan, we did not go hungry at this event, held on 28 November. The basic fare was a sausage sizzle but there were many accompaniments and afters! The weather was kind and the setting—just beautiful. As requested, all participants were wearing some red or some green, or both, and after a brain-teasing quiz about the Arboretum (written and organised by Anna Howe), the winners won prizes donated by Richard Bear, Trish (our Chair), and the Curatoreum gift shop. Then two Friends led a Christmas carol-singing session which was great fun. This was definitely one of our most successful social events.

TREE-HUGGERS ANONYMOUS?

The Tree Monitoring sub-group found the six largest Queensland bottle trees quite a challenge to measure on 3 November. Here (from left) are Yvonne Kilgour, Maggie Hawkes, and Greg Blood on the job.



EUROPEAN GOLDFINCHES NESTING IN FOREST 35

Work in the Tree Monitoring subgroup can get a little monotonous but every so often we are rewarded by seeing something really special that the casual observer could never see.. On 22 November, we were working in the river birches and most of us were a little weary, having been concert volunteers on 21 November. We parted the branches of a bushy shrublike tree to insert the measuring pole next to the trunk, and discovered a tiny bird nest. While photographing the nest, at about eye level, we discovered it contained three tiny, recently-hatched chicks. The second pic here was taken four days later when the chicks were more advanced. Then on 3 December the parents were close-by and the chicks were nearly ready for flying lessons. What a Joy! They were European Goldfinches.







HOORAY HOORAY! DATE PLUMS ON THEIR WAY!

These trees are rare in Australia but they appear to be doing very well in Forest 86. They were only planted in May 2012 but are already way above our heads, and a few trees are developing fruits. They were flowering early to mid-November and at that stage it appeared that we had more male trees than female trees, but not all trees flowered this year. The male flowers are deep pink and white and the female flowers are larger and less colourful—pale yellow to apricot.

Male flowers (top), female flowers (centre), and fruit developing on 12 December.

PHOTOS: LINDA MULDOON









MANY HANDS MAKE LIGHT WORK

On Tuesday, 8 December, a Friends' Working Bee worked in the totaras (Forest 64), distributing mulch around young replanted saplings. Some of these New Zealand trees have proven difficult to establish, but they may eventually become medium to large, dense conifers, around 20 m tall with a spread of 18 m. It's just very difficult to imagine those proportions at this stage!

FIRST CONES IN FOREST 52— NORWAY SPRUCE

Spring 2015 proved to be a very exciting season at the Arboretum, with many species flowering for the first time. One Norway spruce was an amazing sight on 11 October, with its deep pink immature cones. By 14 November, the cones had turned downwards and their colour was considerably subdued.

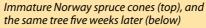








PHOTO: ADAM BURGESS

SILKY OAKS FLOWERING IN FOREST 51

Two of the *Grevillea robusta* trees have flowered for the first time this December, near the tops of the trees. What a wonderful sight this forest will be a few years down the track!

STEP REGIONAL BOTANIC GARDEN IN FOREST 20

STEP has now attained Regional Botanic Garden status and is making considerable progress, with many additional plantings and much visitor interest. They have nominated two sites where they would like to install seats and are looking for two sponsors to cover the cost.

STOPPRESS

Our raffle was drawn on 15 December 2015 and raised a total \$1736. Many thanks to everyone involved.

MEMBERSHIP APPLICATION FORM

Please complete this form, OR go to www.arboretumcanberra.org.au where you can join online and make a secure payment.

Yes. I/we wish to join the Friends of the National Arboretum Canberra Inc.

1. TitleFirst	name			
Last name				
2. Title First name				
Last name				
Postal address				
Postcode				
Email address		••••••		
I agree to receiving notices by email YES/NO				
Telephone (h) (w)				
Please remember to tell us about changes to your contact details				
Date				
Please circle your relevant membership category/parking voucher request:				
Single	1 year \$35	3 yea	ırs \$95	5 years \$155
Household	1 year \$40	3 yea	ars \$110	5 years \$180
Concession	1 year \$20	3 yea	rs \$55	5 years \$90
Association or club	1 year \$60	3 yea	ars \$160	5 years \$270
Corporate Friend	1 year \$2000	3 yea	ars \$5400	5 years \$9000
Friends' annual parking voucher \$25 Reg. No.				
Total payment Please circle your method of payment				
		Cash	Cheque	Direct deposit

(cheques must be made payable to Friends of the National Arboretum Canberra Inc.)

Post membership applications to:

The Secretary, Friends of the National Arboretum Canberra Inc. PO Box 48, Campbell, ACT 2612

Direct deposit details are:

WESTPAC, Petrie Plaza, Canberra, ACT

Account—Friends of the National Arboretum Canberra Inc.

BSB No. 032719 Account No. 375379

(when making a direct deposit, please record your name so that your membership can be verified)

Friends of the National Arboretum Canberra Inc.

Contact

You can contact us via email at friends@arboretumcanberra.org.au or visit our website at www.aboretumcanberra.org.au or by phone during business hours on 0406 376 711

Office bearers

Trish Keller OAM (Chair) Jennie Widdowson (Deputy Chair) Del Da Costa (Secretary) Richard Bear (Treasurer) Colette Mackay (Donations and Sponsorship Manager)

Council members

Max Bourke AM Kathryn Cole (Guides Co-ordinator) Cherie McLean (Social Media Manager) Linda Muldoon (Publications Editor) Lainie Shorthouse (STEP Representative) Mike Woolley (NBPCA Representative)

The Council (all of the above) meet on the second Tuesday of each month

Life members

Max and Margie Bourke Roger Hnatiuk Sherry McArdle-English Linda Muldoon **Jocelyn Plovits**

Honorary member

Jon Stanhope AO

Patron

John Mackay AM

Newsletter

The newsletter is published quarterly. Please contact Linda Muldoon, the editor, by email on

lindaon@grapevine.com.au if you would like to contribute an article, news or photos. Decisions regarding what content is published are determined by the Chair.

The Friends thank the ACT Government. ActewAGL, Yarralumla Nursery, Murrays Coaches, Supabarn, Ginger Catering and Elect Printing for their support









