

# FRIENDS OF THE NATIONAL ARBORETUM CANBERRA Inc.

#### DATE JULY 2011 | VOLUME 14

#### Dear Friends

First of all many thanks for providing me the honour of being the Chair of the Friends for the next two years. I look forward to meeting you and working with you to keep our organisation vibrant as the key support for the development of the Arboretum. Also welcome are Trish Keller OAM as the new Deputy Chair, Spero Cassidy as our new Events Co-ordinator (mainly working on marketing), and our returning members: Colette Mackay, Secretary; Alan Franklin, Treasurer; Cathy Robertson, member (and the STEP representative) and Linda Muldoon, member and Publications Editor. If you too would like to be involved on Council, in helping to run a special project like our Focus on Youth, or be a team leader on a rocky knoll (to name just a few or our activities), please get in touch.

At our Annual General Meeting we presented key awards. Our 'Volunteer of the Year' is Marelle Rawson who more than met all the criteria as a very involved volunteer. Life Memberships were presented to Sherry McArdle-English and Dr Roger Hnatiuk, both of whom have given unstintingly to the great outcomes the Friends have achieved and continue to achieve. Members also voted to make Jon Stanhope, our recently retired Chief Minister for the ACT, an honorary member of the Friends. At his farewell function I presented him with his certificate and a bonsai older than the new forests at the Arboretum. He was most pleased.

Our thanks too to Dr Maxine Cooper, Commissioner for the Environment, who presented a very interesting talk on her recent research into the urban forest. A copy of her talk is available on our website and I recommend it to you.

With the new Council term comes the implementation of initiatives. The first is developing a new logo to reflect



the fact that as Friends we are vital people welcoming visitors and supporting the development of the Arboretum. We have the graphic and are fine tuning the lettering. As you can see, the generic person is blue – the colour for the Friends and related very closely to the

wonderful picture taken of us all wearing blue at the end-of-year party for 2010. (You can see the picture on our website.) With open, welcoming arms surrounded by the patchwork of leaves there is a reference to the patchwork of the Arboretum and the graphic also takes on the shape of a tree.

Hearty thanks to Spero for his work organising the logo and to the members of Council who advised him. I really hope you all appreciate the energy that has gone into getting us this far. If you have time, let me know your constructive feedback by email to: friends@arboretumcanberra.org.au.

We are soon coming up to Floraide @ the Arboretum which will be a great chance for new members to attend training about the Arboretum and for volunteers to present our wonderful Arboretum to the public. Volunteers will be needed on each of the Sundays during Floriade.

Enjoy our very informative newsletter and do take up the challenge to be recognised as a 'Forest Hero' or to nominate someone (see page 4). See you at the Arboretum!

#### Jocelyn Plovits Chair













## DEFINITELY A TREE-PLANTING TO REMEMBER

The sun hadn't fully risen on 19 April 2011 when Friends, guests and the media gathered to await the arrival of The Honourable Jullia Gillard MP, Prime Minister of Australia. Our PM was to plant a tree in the Arboretum's Central Valley: a ghost gum (Corymbia aparrerinja) that had been grown from a cutting from the sabotaged 150 year-old 'Tree of Knowledge' that grew in Barcaldine, in Queensland's central west.

This was also a day of glad tidings as the PM announced a contribution of \$20 million to the Arboretum as part of the Commonwealth's gift to the Australian Capital Territory for Canberra's centenary in 2013.







Friends and guests waiting for Julia to arrive

PHOTOS BY LINDA MULDOON













PHOTOS BY LINDA MUI DOON

#### THE WORLD OF ARBORETA 4

# BAGO STATE FOREST ARBORETUM AT PILOT HILL

By Max Bourke

Not far from Canberra, between Tumbarumba and Batlow, is an excellent example of a State Forest Arboretum. Commencing in 1924, it was planted by the then NSW Forests Commission and, like many early arboreta, it was aimed at being a truly scientific tree trial.

Over 50 species of trees, mostly conifers, were trialled in small plots at this Pilot Hill arboretum. *Pinus radiata* consistently out-performed all other species in these trials and so was adopted for production forestry. This site, and some others have been retained as amenity arboreta, which while remote, are well used.

Today, after you turn off the main road, you will find very pleasant picnic facilities and a good many of the original plantings remain, now as large mature trees. Probably the most spectacular is the plot of *Pinus* lambertiana (sugar pine). One row has been removed (see picture) giving you the chance to walk into this cathedral-like space. Sugar pine has the longest (not the largest) cones of any of the pines and is a native of Oregon and parts of California. It produces a sticky white secretion in large quantities on the cones, hence its name. While these are massive trees after almost 90 years, they still did not perform as well as P. radiata for timber production and hence sugar pine has not been used commercially. Unfortunately in its native environment it has been badly affected by blister rust which has affected a number of other pine species.

Well worth a day trip from Canberra. To get there, drive to Trunk Road (the Batlow to Tumbarumba Road), and then turn east at Laurel Hill into Kopstens Road

(a sign-posted gravel road).



Currency Creek Arboretum







#### FOREST HEROES: International Year of the Forests

#### In celebration of Forests 2011

The Friends of the National Arboretum Canberra are seeking nominations to find and recognise ACT Forest Heroes and to forward one of these as a nominee to the United Nations Secretariat for the International Year of the Forest. Information for this project has been taken from the UN's Forest Heroes Programme and Awards web site at www.fs.fed.us/iyof/documents/forest-heroesmain.pdf.

Once a diverse group of heroes has been determined, it is the UN's hope that these would be a group of people who would work with other aspiring heroes around the world to share best practices and spread the forest message! The Friends support this goal.

A UN international judging panel will select the Forest Heroes to set up an international network of people who can promote forests and their value into the future.

To contribute to this process, the Friends will select a hero in the ACT to nominate to the UN.

### Objectives of establishing Forest Heroes in the ACT and finding a nomination to send to the UN

- Recognise and honour everyday unsung Forest Heroes.
- 2. Inspire people to get involved and take action in their local communities.
- 3. Promote partnerships between heroes around the world to share knowledge and work together locally, regionally and globally.

#### **Application and selection criteria**

The spirit is that a Forest Hero can be anyone or group, from scientists, to school teachers that create innovative forest curriculum, or a group of individuals dedicated to actively promoting forest values.

#### Selection criteria:

- Individuals that have received little or no previous recognition for their work
- Conducted work that has delivered environmental, social, educational, or community benefits
- Willingness to participate in Forests 2011 events and activities
- Unique/inspiring dedications to forests that stands out

#### Submissions/nominations should include:

- Descriptions of candidates' achievements, and the impact of their actions.
- References for the UNFF Secretariat to contact
- Photos, a video clip or any other multimedia, if available, that could make their stories and personalities come alive!

#### **Categories**

A nominee from one of the following categories will be forwarded to the UN Secretariat for consideration for the end of year awards to be announced in December 2011 in the Forests 2011 closing ceremony:

- Outstanding individual over 25
- Outstanding individual 25 and under
- Outstanding school effort
- Outstanding group effort within the Friends
- · Outstanding group effort in the ACT

#### Nomination for forwarding to the UN Secretariat

Closing date for nominations is 1 September 2011. In the first instance nominations should be submitted to the Secretary of the Friends of the National Arboretum Canberra on friends@canberraarboretum.com.au with the subject 'Forest Heroes Nomination'.

The Friends' jury will select a nominee for each of the categories and these will be recognised at a ceremony in the ACT. Assessment will be against the above criteria which have been set by the UN Secretariat. Applicants will be notified of the ceremony arrangements.

The successful ACT nomination will be forwarded to the UN utilising the documents submitted for the ACT judging.

For further information contact Jocelyn on 0406 376 711.









# GIRALANG'S AVENUE OF ARTWORKS

Giralang Primary School is the first school to become a member of the Friends of the National Arboretum Canberra and each class has been named after one of our forests. Their corridors are lined with this graphic evidence of their involvement.

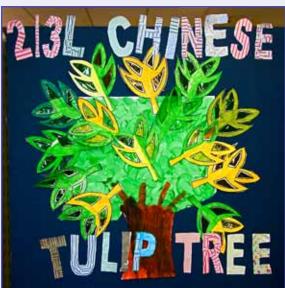


These paintings are by eight different students. They feature a photo of each student looking out of a window at their version of a dragon tree at the Arboretum.



Note the skilfully-crafted trees representing an Arboretum forest. The porthole windows onto classrooms and courtyards are a feature of this heritage-listed school building. It was designed by the famous Italianborn architect Enrico Taglietti.











PHOTOS BY LINDA MULDOON







#### BUS TRIP TO NALYAPPA Saturday 19 November 2011

There are still a few seats available for this trip to Yaouk, at the Murrumbidgee headwaters, to visit an important private arboretum. Val and Maurie Henderson, who are now in their early eighties, have planted 'Nalyappa' over the past 35 years and their collection includes many of the species planted in our Arboretum.

We will travel on a 48-seat Murrays bus which will leave from in front of the Defence complex at Russell Hill, near Blamey Place, at 8.30am. Cars can be parked in the carpark opposite for free. We will travel via Adaminaby where we'll stop for about 45 minutes for a toilet break and to visit the newly-opened museum housing the Adaminaby Snowy Scheme Collection. The return trip will be via Shannons Flat and Cooma and we'll stop in Cooma for a short toilet break, arriving back in Canberra at about 4.30pm.

The cost is \$50 per person and this includes a 'brown bag lunch'. To book, email Max Bourke who is organising the trip: max@mebourke.com or phone him on 6247 4630.

Payment is required by 19 October, either by cheque or direct deposit. Cheques should be posted to: The Secretary,

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

For direct deposit details, see page 16.



Nalyappa in autumn

#### **FACTA WESTBOURNE WOODS ARBORETUM WALKS**

Free two-hour guided walks through the grounds of Royal Canberra Golf Club on the second Sunday of every month

Meet 9.30am at the golf club entrance, Bentham Street, Yarralumla

14 August	Remarkable trees in the woods	guide John Turnbull phone 6281 5991
11 September	Food and fodder from trees	guide Paul Dann phone 4842 8097
9 October	History of Australian arboreta	guide Max Bourke phone 6247 4630
13 November	Australian trees in the Arboretum	guide Warwick Wright phone 6281 3088
11 December	Philosophy, trees and spirituality	guide Kim Wells phone 6251 8308

Dress code of the club applies if you would like to accept the club's invitation to take refreshments at the Spike Bar after the walk (details at www.royalcanberra.com.au).

For further information contact the guide or **Friends of ACT Arboreta** on 6288 7656 or 6281 1587. No dogs allowed.







#### **SEX AT THE ARB...**

#### By Roger Hnatiuk

Now that I've got your attention ... I will tell you a true story about the sex-life of plants that don't rely on the birds and the bees for their undercover work.

Last April, the fig sub-group of the Friends, were out pondering which fig in the Arboretum was which variety. We were examining the size, shape, texture and hairiness of leaves and stems. They are very variable. Some, for example, have leaves that feel a bit like velvet, while others seemed like sandpaper.

We also were observing the fruits of these still young trees: the subtleties of shape, colour, spotting of darker shades, were all important to our working out whether we were looking at White Adriatics or Black Genoas, Brown Turkeys or Preston Prolifics. We did make some progress, but more work is still needed this coming summer.

While all of this fig work was very engrossing, I did manage to look up towards the magnificent stand of Himalayan cedars to the south of us. I saw pale clouds rising above the dark green of the trees and wondered where all the traffic was going to make so much dust on the roads further south.

Then as I watched, a small gust of wind shivered the crowns of the trees, proceeding like a quick wave along the tops, moving from east to west (Figure 1). Instantly, clouds of pale yellow 'dust' rose up, coiled around in the complex flow of air, then drifted west and down into the forest below (Figure 2). I had just witnessed wind pollination en masse. Gazillions of male gametes released in one mass event to find a successful mate.

I recognised this mass sexual extravaganza because I had seen it before in pine trees in the Canadian Rocky Mountains many decades ago.

The whole continued off and on for the next hour, then was gone.

If we could have floated up into those branches, we would have found tiny female cones, probably in shades of greenish purple and reddish greens. Close examination would have revealed minute cracks between the tender, young cone scales. Pollen would have been dusted over the surface from the mass release triggered by the passing wind. What we wouldn't have seen in the days to come would have been the 'germination' of the pollen tube from the pollen grains, with each tube heading down between the cone scales, carrying its precious DNA cargo. They were probably following chemical trails that would have lead to the 'naked' surface of a small spot on the exposed ovules.

This tiny, naked spot on the ovule is what gives the group its name 'gymnosperms' (from the Greek words gymnnos, naked, and sperma, seed). All of the conifers belong to the gymnosperms. In contrast, all of the flowering plants belong to the 'angiosperms' (from Greek angio- covered, referring to the layer or layers of cells that cover or enclose the entire ovule).

You might be aware of these mass pollen-shedding events when you see 'yellow rain'. Often in spring, after a shower, you will find pale yellow dust covering things outside, or lining the edges of rainwater puddles. These are most often masses of pollen from the pine forests that are so abundant in our region.

Figure 1



Figure 2









## THE ARBORETUM'S ROCKY KNOLLS

#### By Jennie Widdowson

The Arboretum has 17 sites which have been identified for development as rocky knolls but there are potentially many more. The thing that they all have in common is outcrops of rock and they are steep, making tree planting unsuitable.

In order to reduce weed growth and make the areas into interesting features, the Friends are running a rocky knolls program organising their adoption by various Friends' sub-groups which will weed, plant and maintain them.

The Friends, Giralang Primary School and the Novotel Hotel group have all started work on their respective knolls in Lots 17, 6 and 67 and more groups are coming forward, as associates of the Friends.

For more information about being involved in the Rocky Knoll Program visit our website at www.arboretumcanberra.org.au.



The Friends at work on 17 April



Planted species growing among the rocks on the Friends' knoll

Novotel Hotel group after their first working bee on 14 April



PHOTOS BY LINDA MULDOON







#### **ORIGIN OF THE ROCKY KNOLLS**

The Arboretum is composed of dacitic ignimbrite, a part of the Mount Painter volcanics, which erupted 428 to 424 million years ago during the Silurian period. The Canberra area was then a shallow sea surrounded by volcanoes. The Mount Ainslie volcano had already erupted and produced lava flows which flowed into the surrounding sea. Mount Painter then started to erupt, producing a fairly fast flowing lava and explosions from escaping gases which ripped away pieces of rock from the volcanic vent, injecting ash and gas into the lava. The lava from Mount Painter can be found right across the Canberra basin with some similar rocks outcropping at Narrabundah.

Following volcanic activity in the Silurian period, the sea receded as the land was pushed upwards by tectonic activity. Faults formed along the boundaries of Black Mountain and the northern perimeter of Lake Burley Griffin. The following long period of erosion resulted in the landscape we see today.

#### **COMPOSITION OF THE ROCKS**

If we study the rocks which outcrop on the rocky knolls we find a dark fine-grained and relatively heavy rock. The crystals in the rock are quartz (glassy crystals), feldspar (pink or white crystals) and horneblende (small dark crystals). Occasionally, there is a small amount of biotite mica (flatish black crystals) and this is the volcanic rock known as dacite. The rock has been described as an ignimbrite because there is evidence in the rock to show that the lava was originally a hot suspension of particles and gases which were explosively expelled from the volcanic chamber. In some rocks it is possible to see a tuffaceous form of the rock where the volcanic gases have produced a frothy looking form of the rock. There are also some large crystals of quartz and plagioclase which can be seen embedded in the finer rock matrix. These are called phenocrysts and they are the first crystals to form as the lava slowly cools. As well as large crystals, there may also be some pieces of older pre-

Weathered dacitic ignimbrite...





Tuffaceous sandstone from a rocky knoll





Dacitic ignimbrite samples from the Friends' knoll showing quartz crystals, feldspar crystals, quartz phonocrysts and lithic xenocrysts

existing rock that have become embedded in the lava by being picked up as the lava flowed over the ground or were torn from the volcanic vent. These are known as lithic xenoliths.

As the rocks on the rocky knolls were eroded, the minerals were broken down from the effects of heat, cold, wind and water to eventually produce soils which are mainly slightly acidic sandy clays or sandy loams. The iron from the horneblende in the dacite has decomposed to ferrous oxide producing the red colour in the soils. The rocky knolls are relatively steep areas, so the soils tend to wash away leaving the underlying rock exposed.

... disintegrating to form soil



PHOTOS BY AUTHOR







#### **KNOLL VEGETATION**

The rocky knolls, by definition, have rocky outcrops, plenty of loose embedded rock and only shallow soil. Nevertheless, it is possible to identify at least 33 species of herbaceous plants growing on them. At least 16 native plants including five grasses are growing on the Friends' Rocky Knoll. In addition there are two exotic grass species (pasture grasses), probably occurring because the area was used for grazing in the past.

Some of the native plants, such as the native sarsparilla (Hardenbergia violacea) and the native bluebell (Wahlenbergia communis) are widespread throughout the ACT and easily recognised. Others, such as the blue cranesbill (Erodium crinitum) and the variable glycine (Glycine tabacina) are less well known. Some plants look like weeds but are in fact natives. They are untidy, straggly plants with unspectacular flowers, but should probably be left to grow on the rocky knolls as part of the ecosystem. Two such plants are the star cudweed (Euchiton involucratus) and Gunn's groundsel (Senecio gunnii).



Blue cranesbill



Variable alvcine



Star cudweed



Gunn's groundsel

Unfortunately, just over half the herbaceous plants found on the Friends' Rocky Knoll were non-native weed species. Some of these, such as ribwort and mustard weed are not too invasive, but others, such as the horehound (Marrubium vulgare) and greater mullein (Verbascum thaspus) can become a real problem. Both horehound and greater mullein produce large quantities of viable seed which can easily cause rapid spread and one plant can lead to many thousands. It is essential that these plants are well controlled, either by spraying, or by digging them out. Even when all of these weeds have been removed, it is possible for them to recur as viable seed can lie on the ground and in the soil for many years.

Other weeds such as sorrel (which sends out underground runners), prickly sowthistle and prickly lettuce (both with nasty prickles as the name implies) are also best removed because they can become quite invasive if not controlled.

When a rocky knoll is adopted, the adopting group should monitor weed growth and make sure weeds are controlled. Then, by revegetating the areas cleared of weeds with suitable native plants, it is hoped that the weed species will be discouraged from returning. So far, the Friends have planted their knoll with native grasses, mat rush, dianella, trigger plants, bulbines and a few hickory wattles. These are all species native to the surrounding area. Unfortunately, some of the first plantings proved to be a tasty addition to the diet of the resident hares and kangaroos, so the second round of planting has been protected with tree guards to discourage the wild life.

It is possible to keep adding to the vegetation of the rocky knolls, so that they become interesting features in the forests and add to the diversity of the area, thus encouraging more bird and insect life to live in our Arboretum as it becomes established.



Horehound



Greater mullein

PHOTOS BY AUTHOR







### Complete list of herbaceous plants and grasses found on the Friends' Rocky Knoll

#### **NATIVE PLANTS**

Australian bindweed Grey willowherb Blue storksbill Star cudweed Native geranium Variable glycine Native sarsparilla Stinking pennywort Gunn's groundsel Fireweed Tufted bluebell Convolvulus erubescens
Epilobium cinereum
Erodium crinitum
Euchiton involucratus
Geranium solanderi
Glycine tabacina
Hardenbergia violacea
Hydrocotyle laxiflora
Senecio gunnii
Senecio tenuiflorus
Wahlenbergia communis

#### **NATIVE GRASSES**

Kerosine grass Golden backed wallaby grass Sickle spear grass

Windmill grass

Tussock grass

Austrodanthonia duttoniana Austrostipa scabra Chloris truncata Poa sieberiana

#### **EXOTIC GRASSES**

Slender oat grass Small pigeongrass Avena ludoviciana Setaria gracilis

Aristida ramosa

#### **ESCAPES FROM THE FOREST AREA**

LucerneMedicago sativaPink cloverTrifolium pratense

#### **WEEDS**

Sorrel
Fat hen
Hairy mustard weed
Catsear
Prickly lettuce
Horehound
Ribwort
Wild sage
Greenberried
nightshade
Prickly sowthistle
Common sowthistle
Hare's foot clover
Greater mullein

Acetosella vulgaris Chenopodium album Hirschfeldia incana Hypochaeris radicata Lactuca serriolla Marrubium vulgare Plantago lanceolata Salvia verbenaca

Solanum opacum Sonchus asper Sonchus oleraceus Trifolium arvense Verbascum thapsus

#### **PLANTED SPECIES**

Hickory wattle
Bulbine lily
Rush lily
Spiny headed
mat rush
Tussock grass
Thrift leaved
trigger plant

Kangaroo grass

Acacia implexa Bulbine bulbosa Dianella sp.

Lomandra longifolia Poa sp.

Stylidium armeria Themeda australis

Giralang Primary School at work on their knoll on 31 May



PHOTO BY ANDREW MCLEOD







### FOREST TALK

#### **HISTORY REPEATING**

We published Michael Hall's article on the history of Dairy Farmers Hill in our last newsletter. Since then, Michael has drawn our attention to an article on page 1 of The Canberra Times of 21 June 1927. The introduction reads:

#### **AFFORESTATION**

PROGRESS IN TERRITORY: HISTORY OF A GREAT WORK

The need for the conservation of timber resources and the planting of additional forests has of late years been urgently impressed upon the nations of the world, and in many countries the re-planting of depleted areas is now proceeding steadily.

Perhaps nowhere in the world, however, has a more comprehensive scheme of afforestation been undertaken than in the Federal Capital Territory. From small beginnings, forests have made their appearance on many of the hills and in the valleys of the Territory, and the passing of each year marks some advance in this monumental work.

And the work goes on!

#### **FEATHERED FRIENDS**

Congratulations to Adam Burgess who photographed these two visitors to our Arboretum: a Wedge-tailed Eagle and a Red Rumped Parrot (flocks of Red Rumped Parrots have been seen).



Wedge-tailed Eagle



Red Rumped Parrot

#### **FROGWATCH**

Did you know that four different frogs can sometimes be heard at the Arboretum?

Limnodynastes dumerili: Pobblebonk Frog Crinia signifera: Common Eastern Froglet Crinia parinsignifera: Plains Froglet Limnodastes tasmaniensis: Spotted Grass Frog







# TREES IN FOCUS Allocasuarina verticillata (drooping she-oak)

By Linda Muldoon

The Friends planted a forest of 190 drooping she-oaks in Lot 96 on 4 July last year. Some of our young trees are now leaping out of their tree guards, so here we take a look at how we can expect them to develop



The Friends Forest 10 months after planting

On Mt Ainslie Drive: female tree in foreground and male tree opposite showing a golden glow



Allocasuarina verticillata is a small long-lived tree growing up to 10m in height, usually with a rounded crown. Its natural habitat includes South Australia, Tasmania, Victoria, and north as far as central New South Wales, including the Australian Capital Territory. Much of the area it once occupied has been cleared for farming but it is still common in coastal regions and it can still be found inland, mostly growing on dry ridges in rocky soils. Drooping she-oak dominates the eucalypts in a small area of woodland near Mt Ainslie's summit. It is extremely tolerant of drought, frost and wind and survives fires of moderate intensity. Once established, it accumulates an effective mulch of dead branchlets and old cones, preventing weeds and competition.



Male flowers on branchlets



PHOTOS BY AUTHOR







The bark is rough, grey and heavily textured. Leaves are reduced to tiny pointed scales or 'leaf-teeth' arranged around the branchlets in rings of 9-13 at 2-3cm intervals. The slender branchlets are about 1.2mm in diameter and as soon as they are long enough they tend to hang down, hence the name 'drooping'. They can grow up to 40cm in length and are dull grey/green in colour with yellowish bands where the tiny leaf-teeth attach.

Male trees begin developing yellowish flower spikes in autumn. These emerge in rings near the tips of branchlets before opening up to become showy orange/yellow tassels in late autumn and winter. The

Female flowers and an immature cone from the previous flowering





Immature cones and older cones

time at which this occurs varies considerably, even between trees growing side by side. As these trees are wind pollinated, this increases the chance of fertilisation occurring.

Female trees produce small red and cream fluffy flowers on their branches in winter but may also carry immature cones from the previous year and older cones. Flowers develop into seed cones that are oval-shaped, 25-50mm long and 20-30mm in diameter. They are covered in points which split lengthways to release dark brown winged seeds.

The forest floor is covered with dead branchlets and old cones, suppressing other growth





The bark

PHOTOS BY AUTHOR









A Crimson Rosella nibbling on pollen-laden branchlets

PHOTO BY ALITHOR

#### **FOR THE BIRDS**

Conservationists in several states have lobbied for *Casuarina* and *Allocasuarina* plantings to safeguard the threatened Glossy Black-cockatoo which feeds almost exclusively on seeds extracted from the cones. The ACT Government has responded by facilitating plantings of drooping she-oak on Isaacs Ridge and Tuggeranong Hill, as well as in our Arboretum. The Glossy Black-cockatoo has bright orange/red tail panels on the male and orange/red barred tail panels on the female. It is smaller than the less rare Black Cockatoo with yellow tail feathers that we occasionally see in Canberra.

#### **OTHER USES**

Local Aborigines ate drooping she-oak branchlets and young cones. These trees make an effective windbreak and they are good at controlling soil erosion but need to be fenced from stock because they love eating them too! The heavy reddish timber has been used for wood-turning, cabinetry and fuel. They've been used as street trees in South Australia and Victoria. The long period of autumn/winter pollen release makes them popular with apiarists.

#### **REFERENCES**

www.florabank.org.au www.threatenedspecies.environment.nsw.gov.au www.anbg.gov.au en.wikipedia.org Shire of Yarra Ranges Streetscape Strategy







#### You can now become a Friend or renew your annual subscription online at: www.arboretumcanberra.org.au

#### **KEEP US UP-TO-DATE**

If you've moved or changed your email address please contact the Secretary on: friends@arboretumcanberra.org.au

### **MEMBERSHIP APPLICATION FORM**

Yes, I/we wish to become a Friend(s) of the	Payment details for members:		
National Arboretum Canberra	Cash Cheque Direct Deposit		
Date://	Cheques payable to the Friends of		
1. Title	the National Arboretum Canberra Inc.		
First Name	Tor direct deposit. Westpac, Fettie Flaza, Act		
Last Name	Account: Friends of the National  Arboretum Canberra Inc.		
2. Title	Account BSB No: 032719 Account No: 375379		
First Name	Please make sure to record your name when making a direct deposit so that your membership can be identified.		
Last Name			
Address	Annual membership falls due in December each year. Gift memberships available.		
Postcode	Send applications and questions to:		
Tel (h)(w)	The secretary		
	PO Box 48		
e-mail			
Do you agree to the use of your e-mail for AGM notifications?  Yes No CONTACT US			
Membership arrangements (please indicate)			
Single\$25	Phone: 0406 376 711 during business hours		
_			
Household \$30 \[ \square\)			
Concession\$10			
Association or Club\$50	Yarralumla Nursery for their support.		
Corporate Friend\$2000	Information prepared by the Friends of the NAC Inc. 7/2011		









