

Friends of the Australian National Botanic Gardens

NEWSLETTER

Number 57 November 2007



Corunastylis aff. sagittifera



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Post material to the Newsletter Committee at the above address or, place in the Friends letterbox, located inside the Gardens' Visitor Centre between 9.00am and 4.30pm, Monday to Sunday. Editorial messages: telephone (02) 6250 9548.

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Cover: *Corunastylis aff. sagittifera*, an undescribed Midge Orchid, one of the lesser known ACT orchids, photographed and described by Tony Wood on pages 4 and 5.



Photo by Murray Fagg

Welcome to Her Excellency Mrs Marlena Jeffery, our new Patron

The Friends are delighted to announce that Her Excellency Mrs Marlena Jeffery has accepted our invitation to become Patron. Some of our members met Mrs Jeffery when

she officially opened the Rock Garden Shelter in March this year. At that time she spoke of her great affection for the Botanic Gardens and we look forward to welcoming her again to other events in the Gardens.

Our retiring Patron, David Young, has been Patron since 1995. Earlier, in September 1990, he was a member of the committee which initiated the creation of the Friends. Subsequently, he encouraged the formation of a guides service for the Gardens and, in 1992, was involved in interviewing and selecting the first intake of guides. Though he has many commitments in the gardening world, with writing, broadcasting and travelling, David has supported the Friends generously through presentations of talks and participation in Friends events. The Friends Council is very grateful for David's support over these years and hopes that we will see him at Friends' events into the future.

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‘Boobook... Mopoke... Morepork...’

Tony Lawson



Since May this year, a Powerful Owl has caused great excitement for bird watchers by regularly returning to the same part of the Gardens. This is either the first or second record for urban Canberra. They are more usually found in the forests to the east (Tallaganda) or west (Brindabellas) of Canberra. The Powerful Owl is Australia's largest owl.

At other times, we are much more likely to spot his smaller cousin, the Boobook Owl, *Ninox novaeseelandiae*. If the Gardens were open at night we would be more likely to hear rather than see the Boobook. In fact, it gets its name from an attempt to represent its call. Other names, such as 'Mopoke' and 'Morepork', are also attempts to represent the two-syllable call.

The bird in the photograph was seen beside the rainforest gully in the Gardens. If you look very carefully, there appears to be another owl behind and to the left. This is typical daytime behaviour by owls. They roost quietly where they hope that they won't be seen, particularly by other birds which would mob them. Sometimes dense vegetation is chosen or alternatively a tree hollow may be used.

Owls hunt at night, using their powerful claws to grab their prey, unlike other nocturnal hunters, such as the Tawny Frogmouth, which grabs prey with its large mouth. Owls have three special features to help them with their nighttime hunting. They have very good eyesight to see in the dark, and very good hearing to find their prey. Thirdly, they have 'soft' feathers so that they can fly silently and not alert their prey before it is caught. The Boobook feeds on insects, and small mammals, birds or lizards.

The Boobook is Australia's smallest owl. It is about half the height of the Powerful Owl and a quarter of the weight. For some reason, Australia is not well endowed with owls—there are around nine species, of which five have been seen around Canberra. In other parts of the world, much smaller owl species are to be found. The Boobook is the most common owl and is found throughout Australia, as well as New Zealand and parts of Indonesia and Papua New Guinea.

The Boobook is the best studied Australian owl. Jerry Olsen and his team at the University of Canberra have been studying them for over a decade on the other side of Black Mountain to the Gardens. Unfortunately that area has been disturbed by the new road that is being constructed and some sites have been abandoned by the birds, due to the loss of roosting trees, nest hollows or habitat for hunting. A lot has been learnt about their behaviour from these studies. For instance Mum takes on the main responsibility during the early stages of breeding, but once the birds are fledged she takes off for a vacation and leaves the rest of the bringing-up to Dad.

The Boobook can be readily distinguished from other owls by its size and by its call. Otherwise, there are two broad groups of owls distinguished by their face masks. The eye discs of the *Tyto* family (Barn Owls) nearly meet on their forehead and they have dark eyes. The second group comprises Hawk Owls which have eye discs separated by a broad forehead and light eyes. The Boobook is a Hawk Owl. Its distinctly dark eye discs are surrounded by a pale border.

The photo was taken in the Gardens on 14 January 2007 by Rose Miller, a visitor on a guided walk.

Some Lesser Known ACT Orchids

Tony Wood (text and photos)

The blue Waxlip Orchid (*Glossodia major*), the yellow Donkey Orchids (*Diuris* species) and the white to pink Finger Orchids (*Petalochilus* species) will be a familiar sight to those who venture into the Canberra nature reserves in spring. But there are many other terrestrial orchids that are not so well known, some that flower at other times of the year, some that are very localised, and some that are rare and endangered. The following is a selection of the less commonly encountered orchid species to be found in the ACT.

Thelymitra cyanea,

known as the Veined Sun Orchid, flowers in summer in sphagnum bogs at high elevations, often forming small colonies. The distinctively veined flowers open freely in warm weather.



Arachnorchis actensis

is Canberra's own spider orchid. A very localised species known only from a few colonies on Mt Majura and Mt Ainslie. Flowering is in spring. Considered to be critically endangered.



Corunastylis aff. sagittifera

is an undescribed species of Midge Orchid that occurs on Black Mountain. It is quite widespread, but only seen in small numbers in dry, more open habitats. Flowering is in early autumn. Easily overlooked because of its small size.



Sullivania minor

flowers in late spring. The flowers are yellowish green to reddish brown and bear a resemblance to a flying duck, hence the common name of Small Duck Orchid. It is locally common on Black Mountain on forested ridges and slopes. A small orchid that is easily overlooked.



Oligochaetochilus hamatus

is not common in the ACT. The flowers are greenish brown and the lower sepals have a hooked appearance, giving the orchid its common name of Hooked Rustyhood. It can be found in open forest, often among rocks. Flowering is in spring.



Cyrtostylis reniformis

is a small orchid with a ground-hugging, heart-shaped leaf. Known as the Gnat Orchid, it flowers in early spring. It often forms quite extensive colonies. It is quite widespread and reasonably common, and can be found in several locations on Black Mountain. The labellum is broad and pinkish-brown in colour. Often overlooked because of its small size.



Hymenochilus bicolor

is one of the spring flowering Midget Greenhoods. The pale green labellum has a dark greenish black appendage that gives the orchid its common name of Black-tip Greenhood. It is quite common and widespread, growing in forest, woodland and grassland habitats.



Prasophyllum canaliculatum

is one of the many species of Leek Orchid that flower in summer. In the ACT it is only known from a locality where it grows among grass tussocks adjacent to swamps. An endangered species whose biggest threat is probably from the activities of feral pigs.



Bunochilus umbrinus

is one of the tall leafy greenhoods. A recently described species, it is only known from a few localities, including several colonies on Black Mountain. It grows on sheltered, southern facing slopes. Flowering is in late winter to early spring.



Lyperanthus suaveolens

is known with certainty from only three colonies in the ACT, two of which are on Black Mountain. It is found in open forest, often in grass tussocks. The flowers, which appear in spring, are long-lived. The common name is Brown Beaks.



***Corysanthes incurva*,**

commonly known as the Slaty Helmet Orchid, is a tiny orchid found in moist sheltered sites in open forest. The single dark purple flower, about 1 cm across, is strongly hooded and sits on a small rounded leaf. The labellum is fringed with short incurved teeth. It often grows in dense vegetative colonies, with only a very small proportion of flowering plants. Flowering is in late winter/early spring. Easily overlooked because of its small size, with the plants often covered by leaf litter.



Acianthus collinus

is one of the so-called Mosquito orchids. Only recently found in the ACT, and now known from three colonies on Black Mountain. It has a small heart-shaped leaf that is purplish underneath. The flowers are pinkish with a somewhat darker labellum. It can form quite extensive vegetative colonies. Unusual in its winter flowering habit.

Araucaria cunninghamii

Hoop Pine

John Turnbull

An entrant in the 2007 Bernard Fennessy
'What's in a Name?' award.

Photo by John Turnbull



From dinosaur tree to producer of paddle pop sticks, the Hoop Pine, *Araucaria cunninghamii* Aiton ex A. Cunn., is very much at home in the Australian National Botanic Gardens. It can be seen thriving in the rainforest gully (Sections 61, 62, 64) and the conifer area adjacent to the caged Wollemi Pine in Section 78. (*Editors' note:* The Wollemi Pine has since died—see Friends Briefs)

This large, elegant conifer belongs to the Araucariaceae, a widespread and abundant family on the super-continent Gondwana, long before Australia broke away and began its drift northwards. Araucarian fossil plants go back over 100 million years to the early Cretaceous age and ancestors of these trees certainly co-existed with dinosaurs.

These days the Araucariaceae family includes Bunya Pine (*A. bidwillii*), Kauri Pines (*Agathis* species) and the recently discovered 'living fossil' Wollemi Pine (*Wollemia nobilis*). Species in the genus *Araucaria* grow in South America, New Guinea and some Pacific islands as well as in Australia. So not surprisingly the name '*Araucaria*' is derived from 'Arauco', a province in southern Chile where *Araucaria araucana*, the Monkey Puzzle tree, is native. Some botanists believe the derivation is from 'Araucanos', a tribe in Chile formerly inhabiting the region where the first *Araucaria* species was discovered.

In Australia this tree is commonly referred to as 'Hoop Pine' and occasionally as 'Moreton Bay Pine' or 'Colonial Pine'. Young trees have attractive reddish brown to coppery bark that splits and peels in horizontal strips. Old trees fall eventually to the forest floor where their soft coniferous wood decays rapidly and all that remains are hoops of bark. These hoops have inspired the tree's common name.

Early in the nineteenth century Englishman William Townsend Aiton (1766-1849) published the name *Araucaria cunninghamii*. Aiton gained distinction as a landscape gardener and was the Royal Gardener at Kew for almost 50 years from 1793. He was also one of the founders of the Royal Horticultural Society. The specific name, '*cunninghamii*', honours Allan Cunningham (1791-1839) who was an explorer and one of Australia's great early botanical collectors. Cunningham studied law and initially worked in conveyancing. He soon became dissatisfied with this profession and found employment as the assistant to William Aiton at Kew Gardens. It was Aiton who recommended Cunningham to Sir Joseph Banks and helped him secure an appointment as a botanical collector.

After a short time collecting plant specimens in Brazil, Allan Cunningham was sent to New South Wales to collect plants on John Oxley's 1817 expedition to the Lachlan and Macquarie Rivers. He was the botanist on Captain Phillip Parker King's survey of the Australian coasts from 1817 to 1820 and later made botanical collections in New South Wales, Queensland and New Zealand.

Although primarily a botanist, he was equally proficient as an explorer. In a series of expeditions he discovered Pandora's Pass through the Liverpool Range (1823), located the rich agricultural area of the Darling Downs (1827), a route to them from Moreton Bay through Cunningham's Gap (1828), and mapped the Brisbane River to its source (1829). He would have encountered Hoop Pines on many occasions during his travels in northern New South Wales and southern Queensland.

In 1831 Allan Cunningham returned to England where he arranged his botanical specimens in the Kew herbarium



Hoop Pine in the Australian National Botanic Gardens. Photo by John Turnbull

and prepared papers for publication. He came back to Australia in 1837 and for a short time was the Colonial Government Botanist in Sydney. His health failed after a visit to New Zealand and he died from tuberculosis in a cottage at Sydney Botanic Gardens on 27 June 1839.

Cunningham's main collections are in Kew Herbarium but duplicates exist in many herbaria. Numerous taxa have been based on his collections and many of his manuscript names have since been taken up. His name is also commemorated in the genus *Cunninghamia* and in several Australian species including *Acacia cunninghamii* Hook. and *Casuarina cunninghamiana* Miq.

Hoop Pine is long-lived and can reach the impressive height of 60 metres and have a basal stem diameter up to two metres. Its narrow scale-like leaves are sharply pointed and slightly curved. They are arranged in spirals on branchlets and, like the well-known Norfolk Island Pine (*A. heterophylla*), the leaves and branchlets are shed as single units. The globular cones, up to 10 cm in diameter, develop at the ends of branches and break up on the tree when the seeds are mature.

This tree flourishes on well-drained, relatively fertile sites dominated by subtropical rainforest in coastal areas of northern New South Wales and Queensland. It is found on many islands off the Queensland coast and extends into Papua New Guinea and West Papua. Mature trees

often emerge above the canopy of broadleaved rainforest species. In wetter areas its associates include Queensland Maples (*Flindersia* species), Rosewood (*Dysoxylum* species) and species in the Lauraceae family. On alluvial sites and near creeks it is associated commonly with Black Bean (*Castanospermum australe*), Brown Pine (*Podocarpus elatus*) and Silky Oak (*Grevillea robusta*). On the driest sites, the Queensland Bottle Tree (*Brachychiton rupestris*) is an associate.

Hoop Pine is the most important native conifer for wood production in Queensland. In addition to the natural forests there are about 40,000 hectares of Hoop Pine plantations, mainly in southeast Queensland. The white to pale brown wood is relatively free of knots. It is strong and easy to work, paint and stain. With these characteristics it makes excellent timber for internal beams and flooring, cabinet work, boat building, and plywood products. The wood is also tasteless, odourless and very fine-grained and it is one of the few timbers in the world that can be used with foodstuffs. For many years it was used for boxes in which butter was exported and today a Queensland company uses hoop pine to supply ice cream sticks globally!

New ANBG Botanical Resources Centre

The Friends, in partnership with the Gardens and Herbarium, are embarking on a new initiative to manage a Botanical Resources Centre, adjacent to the Friends' Lounge, to be open to the public seven days a week. The Centre will include the Public Reference Herbarium, essential book resources, plus computer facilities to enable the public to access the Gardens' and other web resources and to use the various interactive botanical identification keys being developed by our Herbarium and other herbaria.

We are calling for volunteers to be trained as 'facilitators' for this exciting new project. The 'facilitators' will be ambassadors for the Centre and assist those wishing to use it. We are planning initial training for the team of facilitators for a couple of hours one afternoon each week over five weeks starting shortly.

It is envisaged that facilitators will be rostered on duty at nominated times, or on call; a system yet to be worked out in consultation with those who volunteer.

If you are interested in extending your botanical knowledge of the Australian flora, gaining skills in plant identification, and passing on those skills to others, please contact the Visitor Information Centre on 6250 9540.

Living Collection Review

Joe McAuliffe and Anne Phillips

Climate change is an issue of global significance which represents a challenge and an opportunity to the Australian National Botanic Gardens. Practically, the ANBG has to be as efficient and effective as it can be in both energy and water use, as an example to the national community and to other gardens. Strategically, the Gardens has to consider what its role is and, specifically, what the role of the living collection is, in contributing to national climate change adaptation efforts. The Gardens work in horticultural information and research, ex-situ conservation of threatened species and community awareness are some of the areas where the ANBG could make significant contributions.

The complexity of the living collection and its relevance to today's political and environmental climate are increasingly coming under the spotlight. As an element of the strategy to position the ANBG as a leader in climate change adaptation, the Gardens has commenced a substantial review of its living collection to better define its role in relation to climate change and drought (the immediate physical impact of climate change).

The first step in this process is a census of the ANBG living collection. This entails a blitz on the stocktake process, which usually takes three to four years. Nursery staff are currently on loan to Plant Records to speed up this process. It is estimated it will be completed in one year when the collection's actual holdings in the Gardens will be realised. From this information the ANBG will be



Joe McAuliffe and Craig Cosgrove collect *Pratia serrepens* seed from the icy waters of Mt Kosciuszko National Park.

able to make assessments of the collection and to develop and implement a living collections policy that will provide the Australian public and scientific community with a nationally relevant collection and thematic displays.

The review may also enable new projects to be developed at the ANBG. Alpine communities have been identified as plant communities likely to be threatened by climate change. With the proximity of the ANBG to alpine areas, it may be that ANBG is well placed to take on national responsibility for ex-situ conservation of threatened alpine plants. Staff have already commenced collections from Alpine Feldmarks and Short Alpine Herbfields in Kosciuszko National Park in conjunction with climate change experts and NSW NPWS, in order to assess feasibility of this as a major ANBG project. (See also *Newsletter* no.55 March 2007.)

Little is known about alpine seed germination and many species have proved difficult to germinate and propagate in the past—this could also form a major contribution to climate change studies.

In order to make significant investment in this project, an ex-situ conservation strategy needs to be developed for target species which will address seed collection and banking requirements as well as propagation techniques and living collection requirements. ANBG staff are keen to be involved in this work of national significance and are working towards developing this strategy with partners.

When walking round the Gardens you can see the results of this stocktake process. A red paper tag means the plant has lost its metal tag or has had its name changed and needs a new tag. A yellow ribbon means the plant has to be removed because it was never part of the collection, usually a seedling, etc. A blue metal stake in the ground means that plant needs a flowering specimen collected for the Herbarium.



Greg Flowers, inventor, with the stocktaking pulpit he made attached to a trolley. Photo by Tim Mulcahy

Diseases in the garden and Gardens

Paul Janssens

Part One of this series, 'Managing bugs in your garden', was published in *Newsletter* No.56 July 2007. Diseases, for the purposes of this article, are pathogens such as smut, rust, fungal and viral organisms that can be found on plants.

Diseases are often constantly present within a garden environment. It is when favourable conditions aren't present that they remain in small populations and the plant can cope with the presence of the disease. It is usually when conditions favour the disease pathogen, that the disease increases in number and size and this can have an effect on plant vigour and general health. It can also be when the conditions for pathogens are favourable, that these same conditions can cause plant stress. When plants are stressed they can be more susceptible to disease infection.

Diseases can be either soil borne or occur on the surface or within plant tissue.

Phytophthora cinnamomi is a disease of plants that can be devastating to plant health, and occurs in the soil. It is a very mobile disease that can move through soil in soil water. If a garden has Phytophthora then it can be very hard to control. Foot dips are the best way to prevent the disease spreading as well as good water management. Run off and excessive watering of gardens can spread Phytophthora. A soil test would be required if Phytophthora is present. Plant symptoms include die back and usually plants growing together will be affected as the disease moves through soil. This isn't common in domestic gardens but is worthy of a mention as it has affected the Jarrah forests of Western Australia and is mentioned by visitors to the ANBG.

Armillaria melia is another soil borne fungus. It has been known to devastate many forested areas. It doesn't move through soil by free water and so isn't as mobile as Phytophthora. A related Armillaria (*Armillaria luteobabalina*) occurs at the ANBG and has killed many species growing in affected areas. It destroys plant roots in the cooler months and the plant can't survive increasing temperatures because it is unable to supply water due to a depleted root system. This isn't common in domestic situations and is mentioned due to its effect on certain sections at the ANBG. It occurs in the Acacia sections above the rockery, at the very top of the Eucalypt lawn and towards the new nursery, to name a few sections.

Leaf blights and spots can occur on some native species. Again control of these can be difficult and unnecessary in many cases.

Two commonly found fungal diseases are:

Sooty Mould. This is a secondary condition to scale attack on plants. The scale sucks sap from plant leaves and a residue called Honeydew forms when sap is found on the outer surface of the leaf. Ants love Honeydew and are often found on plants that have scale. The Sooty mould then grows on the honeydew. The best way to control all of these is to control the scale with a pest oil. If sooty mould is all over a plant and detracts from the look of the garden, it is best to remove and replace that plant. Spraying sooty mould does not remove it.

Powdery Mildew. Powdery mildew can be found on young Eucalyptus seedlings when propagated. It occurs as white spots on the upper and lower surface of the leaf. It can be controlled by improving air circulation around the plant or spraying with Lime-Sulphur. It doesn't harm plants but can slow plant vigour.

Diseases may be seen in gardens but the main message from this article is that they are not easy to control; they occur due to plant stress and when conditions are favourable for the pathogen. There is no need to spray chemicals around your garden but rather accept that diseases are a part of the garden ecosystem. If infections are seriously harming plants or the aesthetics in your garden, then consider removal and replacement of badly affected plants.



Armillaria and remedial action in the Gardens
Photo by Heino Lepp



Growing friends

Sorry! Plant sale cancelled

The Growing Friends were very disappointed they had to cancel the spring plant sale, originally scheduled for 13 October. Hailstorm damage and other problems greatly reduced the stock available for sale. The Growing Friends hope for a very successful autumn sale in 2008.

Water tank

On 18 October the Growing Friends took delivery of a 9000 litre rainwater tank to help meet their future water needs. They had been concerned that, if more severe water restrictions were to be introduced in future, their plant propagation activities might become impossible. At their request, Friends Council agreed to provide up to \$4,000 for the tank and pump.



Photo by Barry Brown

New propagations

The Growing Friends recently propagated cuttings of *Calothamnus quadrifidus* and *Acacia covenyi* and hope that they will be available for sale in the autumn.



Photo by Murray Fagg

Calothamnus quadrifidus is in the Myrtaceae family and is found in south-west Western Australia. Commonly named 'net bush' because the long stamens on the one-sided flower clusters resemble a net. Spring and summer flowering, and bird attracting, this plant grows best with some overhead cover. *Calothamnus*: Greek kalos, beautiful; thamnus, shrub. Named by Robert Brown who collected three species when he visited Lucky Bay near Esperance, WA, during the Flinders expedition in January 1802. *Quadrifidus*: flower parts in fours. Brown thought this was an unusual character. He was not to know that most species in the genus also have this character.

Acacia covenyi is in the Mimosaceae family from the southern tablelands of NSW. It can be a large shrub or a small tree to six metres. It has attractive blue/grey foliage and is commonly known as the Blue Bush. The phyllodes are broad-linear to 5 cm and with large bright yellow ball flowers which occur in spring—altogether a spectacular sight. It is hardy and frost resistant. *Acacia*: Greek akakia was used for a thorny Egyptian tree (from akis, a sharp point); subsequently the genus was formally named *Acacia*. *Covenyi*: after R Coven, botanical collector at the Royal Botanic Gardens, Sydney.



The Botanical Bookshop

www.botanicalbookshop.com.au

always welcomes Friends of the ANBG to the store. A 10% discount is offered:

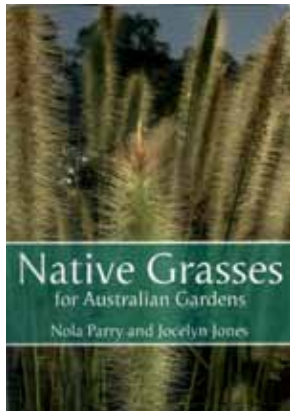
- on purchases over \$10
- on production of your current membership card
- to the person whose name appears on this card

No discount is given for items marked 'Red Spot Specials'.

There are two free (30 mins) parking spaces for customers in both southern and northern parking areas

From the Bookshop

with Tom Butt, Shop Manager



Native Grasses for Australian Gardens

by Nola Parry & Jocelyn Jones

Chatswood, Reed New Holland, 2007

Paperback (plastic cover), 160 pages, illus, bibliography
ISBN 978 1877 069 420
RRP: \$24.95

Native grasses, through their versatility, striking and elegant forms, and their beautiful flowers, foliage and seed-heads, can greatly enhance your garden. They can be mass-planted or used singly as a feature, and be grown around ponds, along paths or in containers. *Native Grasses for Australian Gardens* is a complete guide to native grasses and grass-like plants, with full colour images.

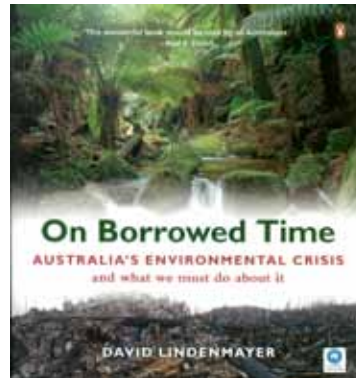
It includes:

- a guide to what is a native grass
- an A-Z of native grasses and grass-like plants, providing a description, an indication of what plants the grass will combine well with, how to care for the grass, and the flowering period
- selection guides to help you choose plants for a particular location
- characteristics and uses for native grasses in your garden.

If you're unfamiliar with Australia's wide variety of native grasses, you will be pleasantly surprised by *Native Grasses for Australian Gardens*, an invaluable guide for horticulturalists, students, landscapers and gardeners.

Jocelyn Jones is a landscape architect who has been involved with native plants for many years, including exporting Flannel Flowers to Japan. She specialises in photography of native plants and also teaches horticulture at TAFE.

Nola Parry has been in the native plant industry for most of her life. She has been involved in the propagation, wholesale, retail, floral design and promotion of native plants and owns a specialist native plant nursery on the Central Coast of New South Wales.



On Borrowed Time: Australia's environmental crisis and what we must do about it

by David Lindenmayer
Penguin in association with CSIRO, 2007

Paperback, 138 pages, illus, bibliography
ISBN 978 0 14 300696 1
RRP: \$34.95

Global warming, biodiversity loss, salinity...there is no doubt Australia's environmental problems appear huge and overwhelming. Not only is our unique natural heritage under threat, but the consequences for agriculture, tourism and the economy may be catastrophic. Can anything be done to halt the destruction?

The good news is much *can* be done. In this powerful and passionate book, David Lindenmayer argues that Australia *does* have the knowledge and resources to tackle our environmental problems. In addition, he outlines creative and impressive suggestions we can all be a part of. One of Australia's leading ecologists, Professor Lindenmayer delivers a timely message about the scale and urgency of the crisis we face.

The table of contents offers a good idea of what to expect from this book:

- The Good: Australia, the ecological paradise
- The Bad: Australia as a leader in environmental degradation
- The Ugly: a paradise lost and a nightmare found
- The Hero: fighting back against inadequate action
- Appendix 1: A checklist of actions
- Appendix 2: List of species

David Lindenmayer is well known as Professor of Ecology and Conservation Science at the Fenner School for Environment and Society at the ANU. He has been passionate about the conservation of Australia's environment for over 25 years and runs large scale and long-term projects in the Victorian forests, farmlands of NSW's south west slopes, the national park system of Jervis Bay and the pine plantation system at Tumut in southern NSW. He has written more than 450 articles and this is his 18th book.

Friends Briefs

Death of a dinosaur

The Wollemi Pine (affectionately known as "Wally" by some volunteer guides), which had apparently been growing well in its protective cage for the past seven years, has died. Paul Janssens, Curator Living Collection at the Gardens, believes the drought is not to blame. Gardens' staff will remove the tree and have soil samples analysed. There is some concern that a soil pathogen may be responsible, and soil analysis will test that.

Paul says he is particularly sorry to lose this plant—although Wollemi Pines are now readily available commercially, the dead plant was much closer genetically to the natural stand of trees in Wollemi National Park than those now for sale.

However, all is not lost—other Wollemi Pines (uncaged) have been planted elsewhere in the Gardens and seem to be growing well. Whether one is relocated into the site by the Gymnosperm Loop depends on the outcome of soil testing.

Summer concerts

Gardens' management has decided that the summer concert program next January will be significantly shorter than in previous years. The next season will run for only four concerts over two weekends: Saturday 12 / Sunday 13 and Saturday 19 / Sunday 20 January.

For the last few years, summer concerts have been held over five weekends, and before that throughout January and February. This decision is a disappointment to the Friends. It will greatly reduce our ability to raise funds to support the Gardens. The wider Canberra community, which has enthusiastically supported the summer concerts over many years, will surely be disappointed.

Friends Council urged management to retain the five-weekend season. Sadly, budgetary constraints and reduced staff numbers made that impossible. Council agreed to support the limited season this summer, in the hope that a more extensive program will be reinstated in 2009. We look forward to an enjoyable, if shorter, summer concert season.

As in the past, volunteers are needed for the concerts. Members who can help to collect donations from the audience (the 'bucket brigade') and staff the wine table are asked to leave a message on the Friends answering machine

(6250 9548) or email: friendbg@netspeed.com.au. Please tell us which evening and which duties you are volunteering for and, if phoning, leave a phone number for us to get back to you.

Welcome Stephen



Stephen Speer has been appointed to the position of Program Manager, Communications and Visitor Services (formerly Public Programs) within the Gardens. Steve was formerly a member of the CSIRO's Discovery Centre team. He started with the Gardens on 15 October. This is a key management position responsible for a range of important functions, including liaison with Friends and Guides. The Friends look forward to getting to know Steve and wish him success and fulfilment in his new position.

Friends' Benefits

Your Membership Card entitles you to the following benefits:

Parking—Free parking at the ANBG. Display your parking pass and please park in the lower levels of the carpark.

Botanical Bookshop and the Cafe—A discount on most items.

Friends Lounge—is open to members from 9.30 am to 4.30 pm. It is in the Ellis Rowan Building - follow the path past the Cafe. A space of our own to relax and enjoy a free cup of coffee or tea. Take the opportunity to catch up on newsletters from other botanic gardens, plus lots of other interesting reading.

Function Facilities—Special rates on bookings for functions at the ANBG.

Open Hours

Australian National Botanic Gardens, Clunies Ross Street, Black Mountain, Canberra.

Open 8.30 am - 5.00 pm daily. Closed Christmas Day. Visitor Centre open 9.00 am to 4.30 pm, (02) 6250 9540.

Free guided walks with volunteer guide: 11.00 am and 2.00 pm daily and 9.30 am from 1 October – 31 March

Booderee Botanic Gardens, Caves Beach Rd, Jervis Bay. Phone for opening times on (02) 4442 1122.