



Welcome to our June 2009 Land for Wildlife newsletter!

Land for Wildlife now has a total of 86 members. Ross River Homestead has recently joined Land for Wildlife and is the first property from outside the Alice Springs municipality to join. At 6202ha, it is now the programs largest property, and contains a number of (vulnerable and threatened) species, such as Minuria Daisy *Minuria tridens*, Thozet's Box *Eucalyptus thozetiana* and Undoolyana Wattle *Acacia undoolyana* as well as Black-footed Rock-wallabies. Read Ross River's property profile on page 10 to learn more about the property.

I'll be leaving my position as Land for Wildlife coordinator at the end of this month. I've learnt a lot during my 15 months in the position, and appreciated the wealth of knowledge, experience and enthusiasm that Land for Wildlife members have provided along the way.

Previous Land for Wildlife Coordinator Heidi Groffen will recommence coordinating the position part-time, working alongside Ilse Pickerd. Ilse has more than 10 years experience in zoology and environmental conservation. See article 'Birds you may see in your garden over winter' to be introduced to Ilse.

### Happy reading!

Danielle O'Hara and Bill Low  
Land for Wildlife Coordinators

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## Workshops

### Insect identification workshop

Butterflies and moths, lerps and katydids, grasshoppers, bugs and beetles! On the evening of the 16<sup>th</sup> April, 17 Garden for Wildlife and Land for Wildlife members gathered at Olive Pink Botanic Gardens to learn about insect identification.

Chris Palmer, entomologist with Parks and Wildlife commenced the night with a comprehensive and enlightening presentation on the different orders of insects, with special mention of Central Australian species. Chris explained how each order of insect has distinct features which for us provide aids for identification. For instance, with beetles, colouration and shape help assist put an individual specimen into a family.

After viewing the presentation, attendees looked at their own specimens under microscopes, and attempted to use an interactive key to identify individuals as closely as possible.

Thanks to Alice Springs Desert Park for lending Land for Wildlife microscopes for the workshop, Olive Pink Botanic Gardens for providing a location, Parks and Wildlife and especially Chris Palmer for presenting information in a clear, entertaining and interest-provoking way.

Given the interest generated, another insect identification workshop is proposed for later in the year.



**Left:** Participants at the Insect Workshop key out their specimens, whilst Chris Palmer looks on.

### Garden for Wildlife two year anniversary

Garden for Wildlife, which complements Land for Wildlife by providing support for town blocks wanting to provide wildlife habitat by planting locally native species, has continued to gain momentum in its two years of existence.

On the 4<sup>th</sup> of April Garden for Wildlife celebrated these two years at Greening Australia's first native plant sale of the year. Heidi Groffen spoke of the progression of Land for Wildlife over the past 2 years and Geoff Miers emphasised the abundance of benefits that accompanies planting locally native species. The winner of our Garden for Wildlife photo competition was announced (keep reading for a peek) and Tim Collins from the Desert Park demonstrated planting techniques to give your seedlings the best possible change to grow vigorously in future years.

An enjoyable day was had by all!! It was the perfect opportunity to catch up with existing members, and recruit some new members to the scheme.



**Above:** Geoff Miers speaks to 2<sup>nd</sup> anniversary attendees. The workshop featured contributions from a number of local businesses and organisations, including the Alice Springs Desert Park, Greening Australia and Geoff Miers of Garden Solutions.

**Below:** Tim Collins explains how to make your seedlings thrive.



## Articles

# The importance of natural tree hollows

As for humans in Alice Springs, there's a housing shortage out there among Alice's native fauna. Tree hollows are a valuable and often essential resource for many of Central Australia's wildlife species. They offer a refuge from the weather and predators, and provide safe sites for breeding. In Central Australia, the River Red Gum is the best-known hollow producer. Native Pine (*Callitris glaucophylla*), mulga, Coolabahs, in fact almost any large tree that has lost a branch will produce hollows. Red-tailed Black Cockatoos only nest in tree hollows, as with most other species of parrot such as cockatiels, Ringnecks, budgerigars, corellas, galahs and mulga parrots. The same is the case for Boobook Owls. Black-faced Woodswallows also sometimes choose to nest in hollows.

Around 300 vertebrate species use tree hollows in Australia, as shown by the table below.

### Australian vertebrates that use tree hollows

Type of animal	Number of known terrestrial species of this type in Australia	Number of these species that use tree hollows	Percentage of these species that use tree hollows
Amphibians	203	29	14%
Reptiles	770	78	10%
Birds	777	111	14%
Mammals	268	86	32%
<b>Total</b>	<b>2018</b>	<b>304</b>	<b>15%</b>

Hollow bearing trees are unevenly distributed across vegetation communities. Higher productivity areas (good quality soils and favourable moisture regimes) support more hollow bearing trees than drier areas of low soil fertility.

Animals do not select hollows at random: factors such as entrance size and shape, depth, degree of insulation, etc, greatly affect the frequency and seasonality of hollow use. A particular type of bird will require a specific nest hollow or opening and may even have a preference for a live or dead tree. Importantly, hollows must also be within reach of suitable food sources to be of value.

For instance, Ringnecks and mulga parrots will both nest in hollows in eucalypts, Cockatiels prefer an unlined hollow area in a tree, Red-tailed Black Cockatoos prefer a hollow in a dead tree and Galahs prefer a much-chewed hollow in a eucalypt lined with eucalypt sprigs.

The removal of hollow-bearing trees from an area will lead to the displacement or death of wildlife dependant on these hollows. The loss of hollows is not a process that is easily reversed, and the repercussions persist for the several hundred years it may take for replacement hollows to develop.

Young trees do not generally contain the valuable hollows for wildlife as they are healthy and resilient to the numerous factors contributing to hollow formation. As trees age they are subject to the natural forces of wind, fire, heat, lightning, rains and to attack from fungi, bacteria, insects such as termites and beetles, and so on. Although the outer living skin of the tree may remain healthy, the inner dead wood can be digested by fungi and excavated by water, be chewed up and carted away by termites, or burnt out by fire. The resulting hollow branches and trunk provide the hollows used by wildlife. Many hollow entrances are small and difficult to see from the ground

The rate of hollow formation depends on the species of tree and its history. Small hollows in Eucalypts will take about 100 years to form. Medium sized hollows may form in two hundred years. Very large hollows, such as those used by cockatoos and owls, may take even longer. Wildlife will also renovate the hollow using beaks, teeth or claws.

Hollows and crevices in fallen timber are also used by wildlife. Under-bark 'hollows' are often used by bats, lizards and invertebrates.

Large hollows are not necessarily best; hollows with an entrance diameter larger than 15cm are probably not preferred by many species. The great majority of

hollow-users prefer small entrances through which they can just fit in. This is so that it will provide protection from potential predators. Many animals place their young in hollows at a very early age when they are defenceless so it is important that only the parent can just squeeze into and out of the entrance to the hollow.

What you can do:

- Although it may sometimes be necessary to remove large old trees from urban areas for safety reasons, try to retain mature, hollow bearing trees, whether alive or dead. Allow leaf litter, fallen logs and branches to accumulate in habitat areas.
- Plant species native to your area that produce hollows.
- Ensure that some trees are always left to grow to maturity so that the supply of hollow bearing trees is continuously replenished. Time of use, for firewood or construction, should be planned to accommodate this.
- Discourage introduced species from using hollows.

Gibbons, P. and Lindenmayer, D.B. (2002) Tree hollows and wildlife conservation in Australia. CSIRO Publishing.

Carrit, R. (1999) Natural Tree Hollows: Essential for Wildlife. Voluntary Conservation on Private and Public Land, Note 5, 1999.

Platt, S. (1999) Wildlife needs natural tree hollows, Land for Wildlife information series, July 1999, LW0006.

## Big Headed Ants: some observations

(in response to Land for Wildlife Newsletter, March 2009).

By Alex Nelson 21 April 2009

Between February 2002 and February 2006 I was resident at an address in Francis Street (Gillen) where I first encountered Big-Headed Ants in Alice Springs. The whole neighbourhood was infested by these insects; and in my small yard only about three other ant species were seen during this period.

It was interesting to observe the interactions of the native ant species with the Big-Headed Ants – the native ants always reacted sharply the instant of making contact with a Big-Headed Ant, leaping aside or being repelled as if stung. I suppose the sparse hairs of the Big-Headed Ants are irritant, similar to the stinging hairs of processionary caterpillars (where I have observed similar reactions).

The nests of the Big-Headed Ants typically occurred in clusters located in moist sheltered conditions throughout my garden and in cracks and crevices of concrete paving – they often appeared overnight. The ants also exploited small cracks or fissures in the trunks of trees to establish nests inside the plants; I first noticed this with a mandarin tree in my yard, and later I discovered an enormous colony emanating about 2m above the ground in the trunk of a Norfolk Island Hibiscus just over the fence in my neighbour's yard. The latter colony clearly numbered in the millions, with masses of insects streaming up and down the trunk of the tree, reminiscent of TV scenes of army ants in a South American rainforest! The health of the trees (in both cases) did not appear to be adversely affected by the Big-Headed Ants.

For the first two years I gained some measure of control over Big-Headed Ants by sprinkling Ant-Sand, which I found to be the most effective off-the-shelf ant control product in shops and supermarkets. This product killed the ants in the immediate vicinity but had to be applied relatively frequently as it lost its potency a few days after use. This method was unsatisfactory, not least due to being an expensive product to purchase.

Eventually I learnt of the bait Amdro and was given a small quantity to try at my place. It worked brilliantly, and I achieved effective control of the Big-Headed Ants for the remainder of my time at this residence. Ant-Sand had failed to control the colony nesting in my neighbour's Norfolk Island Hibiscus but, after sprinkling a generous dose of Amdro around the base of the trunk, the colony was destroyed and there was no re-infestation. Amdro only needed to be applied infrequently and in minor quantities across the whole



yard – it is also a target-species specific chemical which did not appear to adversely affect any other organisms.

This feature of Amdro did present one unexpected drawback. My very successful garden was home to large numbers of a small dark grey beetle that fed on the mulch and leaf litter (it was unaffected by the Big-Headed Ants) and also to slaters, which occasionally proliferated to plague numbers. The slaters were highly attracted to Amdro and sought it out and ate the bait with relish, to no ill effect. The slaters would even swipe Amdro from the Big-Headed Ants as they carried the bait to their nests – the slaters were quite immune to the ants. This necessitated having to spread a snail bait to control the slaters before I could use Amdro to poison the Big-Headed Ants.

The most startling observation came on December 1, 2004, when I hosed down a small paved area in my yard. A nest of Big-Headed Ants erupted from a crack in the paving (as usually occurred during such an exercise) but on this occasion I was very surprised to see a substantial number of winged ants emerging with the other two usual castes. I collected a number of them in a jar, refrigerated them, and then took them to the Threatened Species Network office.

Unfortunately no further action was taken and the specimens were subsequently destroyed by mould. This was the sole occasion I saw winged individuals emerge from a Big-Headed Ant nest.

I also encountered Big-Headed Ants at the Olive Pink Botanic Garden (where I worked) in 2005. They had begun to establish colonies in the paved area under shade cloth next to the café (now the entrance to the office). Again, it was interesting to observe the interaction of the Big-Headed Ants with the native species – in this case, the Common Black Ants that proliferate at the OPBG.

There were two distinct responses from the black ants, depending on the castes of the Big-Headed Ants. The minor workers repelled the black ants on contact, as I had observed with other ant species at my Francis Street residence. However, the black ants

responded aggressively to the large workers, attacking and dragging them into their own nests. Despite this, the Big-Headed Ants began to progressively dislodge the Common Black Ants from their nests until I sprinkled Amdro around. The Common Black Ants were unaffected by the Amdro but the Big-Headed Ants were eliminated and no re-infestation has been observed at the OPBG since that time.

In February 2006 I shifted to a new home in Renner Street, Old Eastside, where (to date) there has been no sign of any presence of Big-Headed Ants in that vicinity.

## **Birds you may see in your gardens over winter**

Hello to all at Land for Wildlife! I'd like to take this chance to introduce myself. My name is Ilse Pickerd and, alongside Heidi, I will be your Land for Wildlife coordinator following Danielle's departure on her overseas adventures. I would like to take a moment to thank Danielle on her retirement from the coordinator's position for the efforts she has put into the Land for Wildlife and Garden For Wildlife programs over the last 18 months. Both groups have grown considerably under her stimulation and tutelage reflecting both her interest and your interest in conservation of flora and fauna in our continuously urbanising environment. We wish her well in her travels overseas over the coming year.

I have previously been working at the Alice Springs Desert Park as a keeper of the avian collection, having moved up from Melbourne where I have worked with invertebrates and the Australian mammal collection at Melbourne Zoo. I have a background in zoology and environmental conservation, and have also had varied work in education and in taxidermy/exhibition preparation at Museum Victoria. I have worked in national parks and animal refuges whilst travelling through India and South America, facing issues such as habitat destruction and illegal animal trades. I'm very excited to be part of Land for Wildlife and helping to encourage desert life back into our yards and town. There is such a unique natural

history here; it's inspiring to be able to all do our part to help protect it. My previous job at the Desert Park may hint that I am quite fond of birds, and birds can be a great indicator of a healthy landscape, so I would like to talk a bit about the birds you may notice on your properties and around town these coming months.

I'm going to talk a bit about resident and migratory birds, but before doing so I might clarify a little. I have chosen the term 'resident' over another common term, 'sedentary', as sedentary brings images of very still creatures, like barnacles, to mind, and birds are rarely still! The other point to consider is that a single species may have resident and migratory populations. A classic example of this the Black-faced Cuckoo-shrike, there is a resident population in town, but there will also be cuckoo-shrikes moving through town to warmer climates, supplementing the local population.

The cold weather has stuck its claws in and many migratory birds have left for the north where the weather is warmer and the insects plentiful. Many birds are moving through Alice Springs from the south to the north, and some birds are staying. You may have noticed that the Rainbow Bee-eater is no longer in the area; their chirping is definitely missed in my garden. As their main diet consists of insects, and our bug supply in Alice is drying up with the frosty weather, the flashy little avians have gone north. The same goes for the White-winged Triller, Sacred and Red-backed Kingfisher and Horsfields' Bronze Cuckoo.

Many birds in transit from south to north are staying a while in Alice Springs. You may notice an increase in Black Kite numbers as the local resident population is boosted by migrating birds heading north. Similarly the Black-faced Woodswallow have stuck around for a little while taking advantage of the flowering trees. They feed on nectar even though



*Black-faced Wood Swallow*  
(Source: Wikipedia)

they are largely insectivorous. Their near cousins, the Masked Woodswallow have already long gone.

Before I start talking about what birds we will be seeing, I might mention a few more we probably won't. After all that rain we had, many plants sprung up and flowered and seeded, and caterpillars, grasshoppers and all sorts of insects appeared en masse. Water will dictate the presence of many nomadic birds, we had a big turn out over summer, now they gradually are leaving us. Along with the Triller, Bee-eater and Kingfisher, it is unlikely that we will see things like the Cockatiel, Mulga parrot, and Budgerigar over the colder months.



*White-winged Triller*  
(Source: Wikipedia)

Some birds, however, will stick around for some of the flowering plants and seed. You may have noticed some *Acacia* have started flowering, the Bloodwoods will flower soon too. With flowering trees comes lerps. Salt bush is fruiting at the moment – an essential food source for periods without rain. Water can always be found in town i.e. bird baths in urban gardens and many opportunist birds will take advantage of these available resources. So let's now focus on the birds we will be seeing over the winter in town.

The Port Lincoln Ringneck Parrot will enjoy the wattleseed, as well as the local Little Corella



*Little Corella*  
(Source: Wikipedia)

population, and of course the Galah. If you're lucky enough or have planned a corner of your garden where the sharp seeds of copper burrs and Caltrop can survive, you may even have Red-tailed Black Cockatoos turn up on your property.

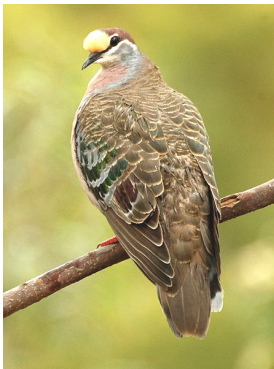
Flowering trees provide nectar for many honeyeaters. Our resident species include the Singing Honeyeater, Spiny-cheeked Honeyeater, and White-plumed Honeyeater. The Grey-headed Honeyeater has also arrived and will stay with us over the winter.

We manage to sustain resident populations of a variety of species in town. These include the Spotted Bowerbird, Pied and Grey Butcherbird, Australian Magpie, Magpie-lark, Black-faced Cuckoo-shrike, Rufous Whistler, Richard's Pipit, Common Bronzewing, White-browed Babbler, and the Masked Lapwing. If you are living out in the Ilparpa Valley you can add Varied



*Grey-headed Honeyeater*  
(Source: Wikipedia)

Sitella, Peaceful Dove and Diamond dove to this list. Unfortunately the smaller bird species don't do so well in town. The habitat for them is not there (yet!) and the competition with the larger more aggressive species, particularly the Spotted Turtle-dove, is too great. An unwelcome resident to include on our bird list is the introduced Spotted Turtle-dove.



*Common Bronzewing*  
(Source: Wikipedia)

As for Birds of Prey their story mirrors their smaller non raptorial counterparts. The Peregrine Falcon will move through town in the early autumn, as will the Australian Hobby and Brown Goshawk, to escape the cold winter of the south. It is possible to see these species all year round as there are resident individuals. The Wedge-tailed

Eagle is territorial and therefore will not budge, but you may notice young dispersing to find a mate and territory of their own.

This is not a comprehensive list; you may spot some other birds flitting about your gardens. If you need help identifying birds, Field Guides are always great. I would recommend Morcombe or Simpson & Day. There is plenty of information and photographs on the internet or you can call us at Land for Wildlife and we can give you all sorts of advice on birds, binoculars, resources, or plants to grow in your garden to

encourage wildlife. I hope to be meeting you all soon and happy bird watching!

## Fungi Fervour

**Wandering about a conference display last year, I stumbled across a woman whose passion was...fungus. Graphic designer by day, her weekends were filled with hunting down, photographing, researching and attempting to infect others with similar enthusiasm for all things fungi. At the time I listened, politely, and flicked through her (admittedly very spectacular) photographs. I then promptly forgot everything she'd just told me.**

**Until last week when I noticed what I now know to be a *Pycnospora coccineus* (Scarlet Bracket Fungus). Remembering the enthusiasm I witnessed, I decided to do some investigating....**

### So... What is a fungus?

Fungi is the name given to the local musical form of the British Virgin Islands. Fungi music is an expression of British Virgin Islands culture as it shows the island's African and European influences in a unique sound. The name fungi comes from a local cornmeal dish of the same name.

[en.wikipedia.org/wiki/Fungi\\_\(music\)](http://en.wikipedia.org/wiki/Fungi_(music))

Fungus, branded on air as Fungus 53, is a punk/hardcore/ska radio station on XM Satellite Radio, launched in early 2004. The channel is one of nine on XM that is marked with an xL, indicating frequent explicit language. ...

[en.wikipedia.org/wiki/Fungus\\_\(XM\)](http://en.wikipedia.org/wiki/Fungus_(XM))

**Undeterred, I kept looking...and found a relatively, understandable definition at CSIRO's Fungibank...**

<http://www.fungibank.csiro.au>

Fungi have their own Kingdom separate from plants and animals. Unlike plants, fungi lack chlorophyll and therefore do not manufacture their own energy. The basic structures of fungi are microscopic cobweb-like threads called hyphae which comprise the feeding and growing body of the fungus - mycelium. The majority of the world's fungi are microscopic and





mostly they do not produce structures visible to the naked eye except if the hyphae form a thick growth. These fungi are commonly referred to as 'moulds'.

However perhaps the most familiar fungi are those which produce spore-bearing fruit bodies clearly visible to the naked eye. They are the so-called 'larger fungi' or 'macrofungi'. Their large structures such as mushrooms, toadstools, puffballs, coral fungi, earthstars, truffles are the spore-bearing fruit bodies of these fungi.

Fungal fruit bodies are in one way analogous to the flowers and fruits on plants, but the leaves and branches of most plants remain conspicuous after flowering/fruitleting has been completed whereas most fungi cannot easily be found before and after fruiting. Usually the only obvious part of fungal life cycles is when they fruit. No wonder the functions of fungi crucial to healthy ecosystems are often not recognized - as the fungi function underground, out of sight.

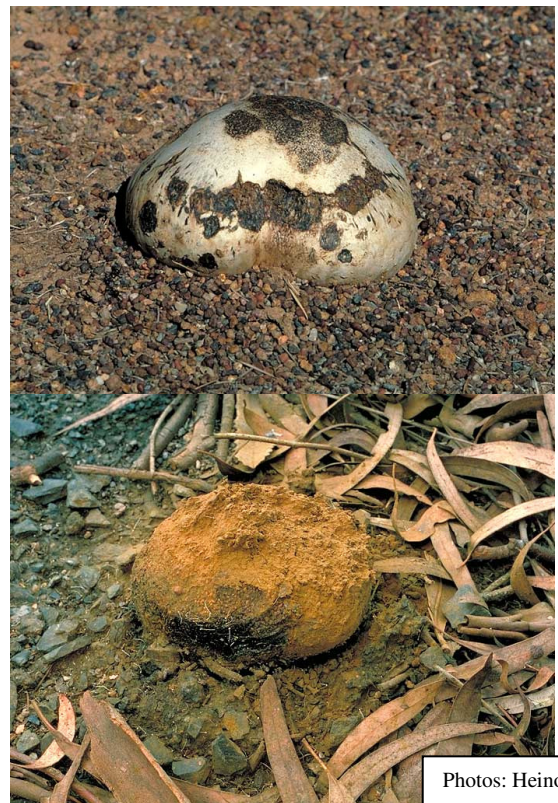
Fungi contribute greatly to Australia's biodiversity in terms of sheer numbers. Australia has many times more fungi than plants - perhaps 250, 000 fungi compared to 21,000 to 23,000 native Australian vascular plant species. However we know little about most of them – possibly only about 5-10% are discovered and named to date. It is estimated that about 5,000 larger fungi such as mushrooms, toadstools, puffballs, coral fungi, earthstars, and truffles occur in Australia. Australia has a high number of truffles – estimated between about 1200-2400 species with only about 10-25 % of species known so

far. About 83 genera and 300 species of truffles are currently known in Australia, compared to 50 known genera in Europe and only 18 in Africa. The distribution and abundance of most native fungi in Australia is not known.

### Fungi in Central Australia

So of these 5,000 Australia wide larger fungi, which are common in Central Australia?

### *Pisolithus* sp.



Photos: Heino Lepp

When fully mature, the fruiting bodies of *Pisolithus* species produce copious amounts of powdery spores. Before that, much of the fruiting body will have a tarry consistency and at that stage it was used on wounds. It was also eaten when still very young, but most likely as an emergency food

According to Latz (1995) 'Anmatyerr and Pintupi people eat this fungus while it is still young and soft, either raw or cooked'.



## ***Choiromyces aboriginum***

This truffle-like fungus is found in the dry areas of South Australia, Western Australia and the Northern Territory. It is roughly spherical in shape and grows to about 7 centimetres in diameter. The fruiting bodies will slightly push up the overlying soil, cracking it and such cracks are used to help find the fungus.

It is a traditional native food and has also been used as a source of water. The fruiting bodies were eaten raw or cooked and Kalotas reported one experience, as follows: "They were cooked in hot sand and ashes for over an hour, and then eaten. They had a rather soft consistency (a texture akin to that of soft, camembert-like cheese) and a bland taste. Cooked specimens left for 24 hours and then reheated developed a flavour like that of baked cheese."

## ***Podaxis pistillaris* (Stalked puffball)**

While commonly thought of as a "Stalked Puffball", this powdery-spored desert fungus is not closely related to puffballs. At maturity the shaggy cap can be lifted off to reveal a mass of purplish black spores. It is found most commonly in sandy soils. According to Latz (1995) 'The puffball is used for decorative purposes throughout the area. Holding it by the stalk, the cap is removed and the spores are brushed onto the body. It appears to be mainly used by children in play: besides painting their bodies, they sometimes use it to draw patterns or pictures on hard ground or to imitate ritual leg slashing carried out by adults during mortuary ceremonies... The northern Walpiri are also reputed to use the spores from this fungus as a fly repellent.'



Photo: Linda Rive. This photo was taken on Finke Rd late 2008.

## ***Pycnosporus coccineus* (scarlet bracket fungus)**

The fruiting bodies of this polypore genus look like bright reddish-orange brackets and are widespread on dead wood. The upper surface is hard but the under-surface is porous.

According to Latz (1995) 'The poisonous fungus is used for medicinal purposes by Pintupi and Pitjantjatjara peoples. It is either chewed out (like a teething ring) or portions are applied to the mouths of young children suffering from skin complaints. It is considered poisonous if swallowed and emits an irritant smoke when burned.'

Two antibiotic compounds have been found in *Pycnosporus coccineus*.



Photo - [www.abpg.gov.au](http://www.abpg.gov.au)

And some more unusual-looking fungi from around the world [www.fungiphoto.com](http://www.fungiphoto.com)



Addition: This article was published as a Garden for Wildlife newsletter in April. One member, Ada Markby (our first Garden for Wildlife member) responded with the following comment:

*'I found the info about fungi interesting, having, in the past, used many fungi in Victoria for dyeing.*

*The Pisolithus is the only one of those shown that grows locally that I have seen and it is used widely by craftspeople here for a good strong yellow/orange dye.*

*Some fungi are fairly rare and take a long time to grow (particularly the 'bracket' ones that grow on trees) so I'm reluctant to try using them for dyes.'*

She also directed me to the following website:

<http://www.rbq.vic.gov.au/fungimap/welcome/>

## Websites worth a look

<http://the-garden-gate.org/botrts.php> Roots of botanical names

<http://www.aussiebee.com.au> Australian Native Bee Research Centre

## Property Profile

### Ross River Resort

On the 29<sup>th</sup> of April, Ross River Resort became our first non-municipal Land for Wildlife property. With a total of 6202ha, it also surpassed the Alice Springs Airport as Land for Wildlife's largest member property.

The homestead has a rich history, built in the 1890's as part of Love's Creek Station, and established as a tourist destination in 1944. Sold and renovated, upgraded a number of times, it has been owned and managed by numerous unique characters over the years, most recently being purchased by Melbourne property developer Rino Grollo in 2001. New assistant managers Harry and Sandra Osborne, who also have a Garden for Wildlife block in town, registered the property for the scheme at the 2 year Garden for Wildlife anniversary.

On the 29<sup>th</sup> of April Bill and Danielle took a leisurely drive out the East Macs to conduct a property assessment and wander around the extensive property.

Containing significant species *Acacia undoolyana*, *Eucalyptus thozetiana* and *Minuria tridens*, as well as providing ideal habitat to Black Footed Rock Wallabies and Short-Beaked echidnas, Ross River Homesteads' only commercial activity is tourism generated by the resort. Livestock are no longer kept on the property, aside from a small number of horses.

Harry is particularly concerned about the spread of Mexican Poppy, and the impact of feral camels and horses on the block. Culls have been undertaken in recent months, with only three camels, one mob of old wild horses and one donkey remaining. Although the source of the Mexican Poppy is upriver, Harry hopes to control the weed on Ross River as an example of management.

Problematic is labour, and during the assessment many ideas were brainstormed about how to recruit volunteers to assist with the task. Ross River is able to provide free camping to participants, however needs an organised, regular workforce to get stuck into the infestation.

Ross River Resort is a valuable new member to Land for Wildlife, and the enthusiasm of Harry and Sandra Osborne to implement changes to further conservation on the property is admirable.



This photograph from the homestead shows a cross section of different landscape types, with a drainage line inundated with buffel grass visible in the foreground, salt-bush flats, river red gum forest and ranges visible in the background.



## Photo competition

In April, our Garden for Wildlife members participated in a photo competition. The only stipulations were that they photographed something from their garden: wildlife, a beautiful plant in flower, their family enjoying their garden- anything. The very impressive winner is as follows:

### Winner of our Garden for Wildlife photo competition...

[Brown Goshawk eating Feral Pigeon 28 Irvine Cres](#)  
[Copyright Barritt & May](#)



## Books worth a Look

**The Complete Field Guide to Stick and Leaf Insects of Australia** CSIRO Publishing  
Paul D. Brock  
Jack W. Hasenpusch



Australia has a rich diversity of phasmids – otherwise known as stick and leaf insects. Most of them are endemic, few have been studied and new species continue to be found. Stick insects are, by far, Australia's longest insects – some of them reach up to 300 mm

in body length, or more than half a metre if you include their outstretched legs. (Have you seen the Goliath Stick insects at the Desert Park Nocturnal House display?) Many stick insects are very colourful, and some have quite elaborate, defensive behaviour. Increasingly they are being kept as 'pets'.

This is the first book on Australian phasmids for nearly 200 years and covers all known stick and leaf insects. It includes photographs of all species, notes on their ecology and biology as well as identification keys suitable for novices or professionals.

- Covers all stick and leaf insects found in Australia
- Clear photos and line drawings
- Easy-to-use identification keys
- Notes on collecting and studying phasmids

### Biodiversity Change and Human Health : From Ecosystem Services to Spread of Disease

Scientific Committee on Problems of the Environment (SCOPE) Series



Osvaldo E Sala  
Laura A Meyerson  
Camille Parmesan

*Biodiversity Change and Human Health* brings together leading experts from the natural science and social science realms as well as the

medical community to explore the explicit linkages between human-driven alterations of biodiversity and documented impacts of those changes on human health. The book utilises multidisciplinary approaches to explore and address the complex interplay between natural biodiversity and human health and well-being. The five parts examine:

- health trade-offs between competing uses of biodiversity (highlighting synergistic situations in which conservation of natural biodiversity actually promotes human health and well-being)



- relationships between biodiversity and quality of life that have developed over ecological and evolutionary time
- the effects of changing biodiversity on provisioning of ecosystem services, and how they have affected human health
- the role of biodiversity in the spread of infectious disease
- native biodiversity as a resource for traditional and modern medicine

*Biodiversity Change and Human Health* synthesises our current understanding and identifies major gaps in knowledge as it places all aspects of biodiversity and health interactions within a common framework. Contributors explore potential points of crossover among disciplines (both in ways of thinking and of specific methodologies) that could ultimately expand opportunities for humans to both live sustainably and enjoy a desirable quality of life.

## Calender of Events

### Alice Springs Field Naturalists Club

**21<sup>st</sup> June** Full day walk from Ellery Creek to the saddle and back again. This is part of Section 6 (Hugh Gorge to Ellery Creek) of the Larapinta Trail. Contact: Connie Spencer 8952 4694. About 9km return, some steep rocky sections.

**11-12<sup>th</sup> July** Hugh Gorge and Birthday Waterhole with two options:

1. Arrive early Saturday morning, leave vehicles at Birthday Waterhole and do an overnight walk to Hugh Gorge (Section 5 of the Larapinta Trail)
2. Arrive later on Saturday and camp at Hugh Gorge (or arrive early on Sunday morning) and do a day walk into Hugh Gorge and back and ferry trail walkers back to Birthday Waterhole.

Leader Nick, details to be finalised.

**18<sup>th</sup> July** Dawn on Spencer Hill. Leader Rosalie. Meet 6:30am Gosse St playground

Please contact Bob Read, President of the Field Naturalists, for more information at [rread1@bigpond.net.au](mailto:rread1@bigpond.net.au)

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