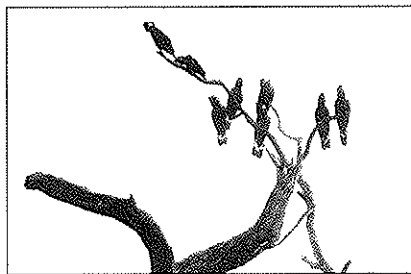




Fauna

CARNABY'S COCKATOO - TWO FAMILIES IN ONE YEAR!



Late afternoon in early September there was an unholy racket in the bush - to our delight the blacks were back, eight of them in the old dead tree, carrying on because the wood ducks were still in one of the hollows (not, I might add, that the Carnaby's had ever to our knowledge used this tree for nesting). After a couple of

days peace was restored and they had all selected hollows in trees around the property (which is only seven acres in Bindoon). Ultimately the pair in the tree nearest the house brought out the new fledgling and showed it off to one and all.



Black cocky in black hollow in wandoo

Surprisingly they didn't leave and seemed to be part of a bigger flock of 40 birds that came over late afternoon every few days. Around mid-November our two were showing interest in the old hollow and Mum, Dad and chick were in and out for a couple of days. To our amazement it seemed that they were sitting again, then around the end of December another chick was heard in the nest. Then there were four, two proud parents one large sibling and a newborn! Is this common? If this is climate change, at least it suits our Carnaby's!

Anne Irwin

FLORA

TREES WITH SUNSTROKE?

Avril Baxter and Peter White

Saturday 3 February and it was hot. By midday, temperatures had soared to the mid 40s, relative humidity (RH) levels had plummeted and a searing northerly wind was scorching the landscape. Most people had retreated into an air-conditioned building or had found some other refuge from the intense conditions. However, some of nature's other creatures were not so fortunate. Birds died, and a few days later the canopies of many trees changed to a pale brown colour.

This browning of trees was reported from Coorow through to Wagin and across to Lake Grace. From valley flats to hilltops, species such as York gum, red morrell, salmon gum and wandoo felt the intense conditions. In some cases only part of the tree was affected, but mostly it was the entire crown. In some areas there were more salmon gum affected, in others it was the red morrell and the wandoo. One tree could be affected and its neighbour not; saplings through to large trees appeared to suffer equally.

The high temperature, and low relative humidity were records for many localities; but it was the unusual combination of these factors, exacerbated by the hot strong winds, that resulted in the desiccation of leaves and hence browning of the canopy of trees.

Whilst conditions were similar across much of the wheatbelt, this browning did not appear to affect trees in the eastern wheatbelt, even though the same species, ie salmon gum and red morrell, were present.

For example, York had many affected trees and 47.4°C with 9% RH, whilst in Hyden, which

experienced the highest temperature ever recorded in the south of WA (48.6°C and 11% RH), trees did not appear to be affected.

This browning of the canopy has recently been reported in the newspapers and is reflected by the concern expressed by wheatbelt residents. However, this event is not without its parallels; a similar event happened in the southern wheatbelt in 1991 when temperatures reached 46°C. That year browning trees were reported from Albany to Lake King. Many were species such as *Pinus radiata*, *Eucalyptus globulus* and other trees planted outside their range, but a significant amount were of well established native trees in bushland.

Affected sites were visited in February 1991 and photographic monitoring points established. One year later, the areas were revisited and rephotographed (see photos below). The crown recovery was almost complete in that time. It was significant to note that the crown had been replenished from the growing tips and not from epicormic shoots

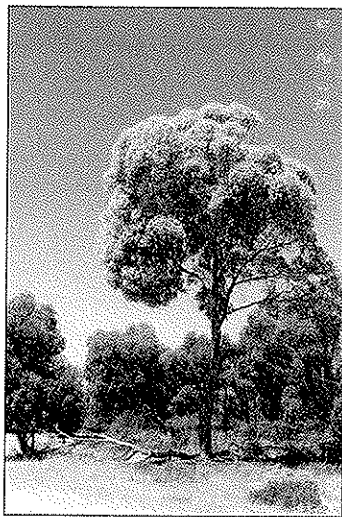
along the stems.

Leaves have already started to fall from the currently affected trees, but from the above evidence, we do not think we should worry that they have "died". If a tree is dying, the process probably began before this event. Nor is the defoliation related to disease.

The full extent of this defoliation event is not known and we would like your help in mapping the area. If you noted a browning of the canopy shortly after 3 February please contact us with information on the location, species of trees affected and, if possible, your local weather observations on that day.

Contact: Peter White, Rural Advisory Officer, DEC Wheatbelt Regional Office, Narrogin, 98819215, peter.white@dec.wa.gov.au

(Weather conditions taken from the Australian Government Bureau of Meteorology website.)



Eucalyptus wandoo affected by heat stress, Tambellup. Feb 1991.



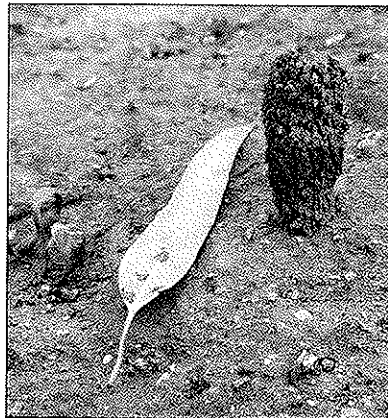
The same tree with new leaves on a year later. Photos: Peter White.

MEMBERS PAGE

TERMITE RELEASE TOWER

Remember these? They are termite 'release towers' to allow the winged adults to leap into their mating flight. Mike Griffiths wrote about them in WW 7/3 (July 2003).

Alison Creagh spotted this one on her block at Boddington in summer. It was a slender upright structure, club-shaped but without a handle, made of blobs of clay. The worker



termites make them soon after heavy summer rain so that the sexually-reproductive adults (who are only very weak flyers) can get airborne.

Little is known about which species of termite make which type of tower – there's a great research project here for some interested student!

photo: Alison Creagh

PHONE TOWER RADIATION AND WILDLIFE HEALTH

On 18/2/2007 a new phone tower was erected outside the Herdsman Wildlife Centre and WWF's Panda House on the south-east side of Herdsman Lake. There has been much discussion as to the effect of radiation from these towers on human health, particularly child health. It is estimated that maximum radiation occurs between 150 and 350 metres from the tower, peaking at approximately 0.58 microwatts / sq cm at 170m. Although there has been no consensus as to the effect of this radiation, there have been reported clusters of ill-health in children living around such towers.

Perhaps this could be a good opportunity to monitor the effect of this radiation on the abundant bird and frog life at Herdsman Lake. The frogs are sedentary and the water birds both sedentary and locally nomadic. A study over three breeding seasons might help to elucidate the medical worries.

Mary Bremner

Dr Mary Bremner is a distinguished specialist in children's health. The issue she has raised here is of concern to everyone. Tadpole development is relatively easy to study, and the northern side of the lake could be used as a control site – perhaps there is someone in an academic institution that could take on this call?

BIRDS AND EXTREME HEAT

As *Land for Wildlife* member Bill Dawes of Yealering retreated to the coolness of his kitchen on Saturday 3 February, he watched the twenty-eight parrots jostling for places in the trees outside his kitchen window. The temperature was around 45°C and the wind was howling from the northwest. The birds were sheltering on the southeast side of the trees, but it was not enough protection, within two hours, they were all dead.

Driving around his Yealering property the next day, Bill counted around 200 dead birds – mainly twenty-eight parrots, but also a few yellow-throated miners. The most dramatic sight was 12 dead parrots and four yellow-throated miners under an isolated small jam tree. Bill wonders why they choose to shelter in this isolated tree and not in nearby tree belts.

Bill is a great observer of nature and has never seen anything like this in the 78 years he has been living in the area.

WOULD YOU LIKE TO HOST A 'COFFEE MORNING'?

'Coffee mornings' held in the Margaret River area recently have proved very popular. *LFWers* meet at someone's place, ramble through the bushland while points of interest are explained, then return to base for a cuppa and further chat. This type of excursion is very suitable for areas with smaller properties, perhaps on the Coastal Plain, the Perth Hills, or the Avon Valley. To start with, there must be a site to look at, on your own block or a nearby reserve - eg revegetation, creation of a wetland, etc.

Is anyone interested? Especially, would anyone be prepared to host such an occasion? Please contact Heather Adamson (Coastal Plain) or Zara Kivell (Hills and Avon Valley). *LFW* will do the rest of the organisation.

FAUNA

WHY DID THE MEGAFUNA BECOME EXTINCT?

In the Pleistocene, about half a million years ago, Australia had a much richer fauna than it has today. Particularly, it had a number of very large animals, collectively called the megafauna – giant wombats, possums, kangaroos, snakes, goannas, flightless birds - none of which were here when Europeans arrived. Why did they become extinct?

There are two general theories to account for this extinction. Firstly that, as Australia drifted northwards, the climate became more arid and the larger animals couldn't cope. The second theory links Aboriginal occupation with changes in fire regime and so vegetation structure, making conditions no longer suitable for the megafauna. A recent paper* has shown that a very wide range of megafauna were living in an arid climate, so the first theory cannot be correct.

A magnificent deposit of fossils was found by cavers exploring under the Nullarbor in 2002, and have been dated to between 400,000-200,000 years ago. Fortunately

the cavers realized what they had discovered, and immediately called in Museum paleontologists. A lot of publicity was given to the first complete skeleton ever found of *Thylacoleo*, the Marsupial Lion, but lots of other animals died after falling through a hole in a cave roof. So far, 69 vertebrate species have been identified in this set of caves, including 23 kangaroo species, eight of which are undescribed. Most of the animals are mixed feeders and grazers, and their very diversity suggests a much wider variety of vegetation than occurs in the area now, including a higher proportion of plants with palatable leaves and fleshy fruits. In addition, two of the new species are tree-kangaroos (whose modern relatives inhabit rainforests) and there are also parrots, implying trees with nesting hollows, close by.

But what was the climate like, was it wetter? Several complex analyses say no, the climate was very similar to today, with an annual mean rainfall of about 200mm falling in a non-seasonal, but slightly winter-

biased, pattern. Thus these animals were adapted to survive in an arid climate. Increasing aridity was not responsible for their extinction.

What was responsible, then? The authors suggest that: "... increased wildfires in the Nullarbor region best explain the conversion of a floristically diverse plant community into the modern, fire-resistant, chenopod shrub steppe." They continue: "Our data do not directly explain the timing of extinctions, but it is significant that the general extinction pattern (the loss of most larger herbivores and *Thylacoleo*) is identical to that witnessed in all southern Australian climatic zones. Most southern species of megafauna were evidently extinct by or soon after 40,000 years ago, at about the time humans reached the south-central coast."

So, human-caused fires changed the vegetation, and so the resource base for the fauna.

Penny Hussey

* An arid-adapted middle Pleistocene vertebrate fauna from south-central Australia. Pridoux et al. 2007. Nature 445: 422-425.

Bush Detective



Here are two pieces of *Hakea varia*, each with a fruit. Or are they? Look carefully. The one on the left is **squishy!**

It is a very clever piece of mimicry by the caterpillar of the grevillea looper moth (*Oenochroma vinaria*). Presumably it adopts this posture as camouflage to fool predators.

The caterpillars are smooth, with two dorsal 'horns' and taper slightly

towards the head. They move with a looping action, feed on grevilleas and hakeas, and can totally defoliate the bush.

The moths have a wing span of up to 5 cm and are usually rosy-purple on top with a purplish spot on the underside of the forewing. They are found from the Atherton Tableland right around the south of Australia to WA.

Thank you to Wayne Gill for this puzzle.

THE SECOND MARGARET RIVER COFFEE MORNING

A Land for Wildlife 10th anniversary event

This coffee morning was held on 7 December last year on Janne and Pat O'Dwyer's property which is a small lot in semi rural subdivision near Margaret River with a creekline and a small dam. When they moved in, the property was mainly paddocks with some peppermint trees along the creek. They proceeded to plant along the creek and around the dam with local indigenous species. A windbreak/wildlife corridor was also planted around the property and more recently a corridor across the property to link all areas together. They also have planted vegie gardens and fruit trees close to the house as well as having chicken pens.

The 17 attendees were split into two groups, with Pat taking one group to one end of the property and Janne to the other. They showed everyone their achievements both in the native gardens which are full of birdlife, bandicoots and black skinks (and more recently a dugite as Janne found out to her surprise!) and also the revegetation

efforts, weed control, feral animal control and wildlife habitat creation.

Janne explained how she sets traps for the rabbits and foxes and feral dogs - the local rangers support rabbit, cat and dog trapping and they will collect anything trapped and either find its correct home or, if feral, dispose of it humanely. In a small semi rural subdivision, you cannot lay baits or set off firearms, which makes feral animal control more difficult. Over the years there have been struggles with many issues but Janne and Pat have remained dedicated to wildlife management on their property throughout the whole time.

The day went longer than expected, finishing with a very welcome home brewed coffee, cake and biscuits. Everyone stayed and chatted and enjoyed the social aspect of meeting other *LFWers* from the area.

Thank you, Janne and Pat.

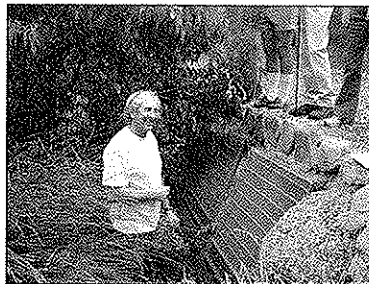
A COFFEE MORNING AT WYADUP

A Land for Wildlife 10th anniversary event

On 17 January, the third *LFW* coffee morning in the Busselton/Margaret River area was held on Neil and Gail Taylor's property in Wyadup. It has 19ha of bushland, creekline, olives, proteas and an orchard.

We started off with morning tea and a welcome to the 13 visitors from Neil. He outlined the property's main features which includes the 1.7km feral-proof fence he researched, designed and built. Handouts on feral-proof fence construction and an interesting one on how high different animals can jump/climb a fence were distributed.

We walked to the creekline and had a look at the marron ponds, as well as the new regeneration occurring since the construction of the feral-proof fence. Previously there were high numbers of kangaroos and rabbits on the property that were causing disturbance. Neil and Gail 'shooed' out some of the kangaroos, leaving a manageable number inside the fence. The rabbit warrens are fumigated regularly to control numbers, while traps are laid for feral cats. Neil gave a few special hints on feral control that he has picked up along the way



Neil at culvert feral barrier



The next stop was to look at the feral proof fence - its design of skirt on the bottom and electric wires on the top. Neil says he has since learnt that there are many other effective ways to construct a fence such as this, but that his second hand materials were of excellent quality and strength and will last well into the future. Neil made the entrance gate himself - electronic and powered by solar panels. On the western boundary, he has installed a system where water rats can escape under the fence.

Returning to the house, we had another cuppa and Neil and Gail showed us how the blue wrens will come and feed off meal worms bred especially for the little birds. It was a great opportunity to catch up with local *LFW* property owners of the area, most knew each other

already but had not had time to touch base for quite a while, others met new people and enjoyed the company and chatted about their individual properties while sitting in the cool shade overlooking the creek with blue wrens curious as to what was going on.

Another excellent day! Thanks to Neil and Gail.

IN BRIEF

WHY FARMERS DO - OR DON'T - MONITOR THEIR PIEZOMETERS

In order to understand what is happening to the water table, a large number of monitoring bores (piezometers) have been installed throughout the south-west of WA. Most of them were installed during a funded project, so it is a sizeable investment by society. They provide information such as soil salt storage and depth to water table. When built up over time, the records from these bores describe the movement of groundwater (fresh or saline) and the subsequent threat to agricultural production (and biodiversity) through waterlogging and salinisation of soils.

However, it is a sad fact that many of these bores are not – and never have been – monitored. A recent paper* explores the social reasons why farmers do, or do not, keep up with the monitoring. It analyses the monitoring done in the Jerramungup region, where landholders are unusual in displaying a very high level of monitoring, and makes interesting, though slightly disturbing, reading.

The initial concept for installing piezometers was to raise awareness, the reasoning being that if farmers realised the rising threat of salinity to their land, they would be motivated to install mitigation practices. In practice, this did not occur, most landholders did not want confirmation of potential bad news! However, this survey shows that farmers who are using the information from monitoring to assess the performance of salinity management strategies *that they have already implemented on their farms*, are more likely to monitor more frequently.

The paper concludes that if landholders are being asked to monitor environmental indicators (such as water table level) then “the indicators most likely to be successful will be those perceived by farmers to be practically relevant to their farm management.” There is a message here for all people concerned with sustainable land use in agricultural areas.

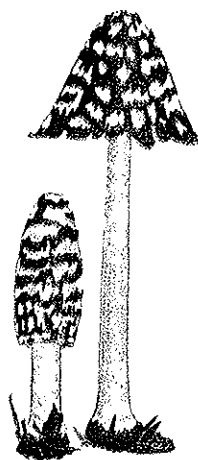
* Marsh, SP, Burton, MP & DJ Pannell. 2006. Understanding farmers' monitoring of water tables for salinity management. *Australian Journal of Experimental Agriculture* 46: 1113-1122

FOR OUR NEXT TRICK - A WEEDY FUNGUS!

Everyone has heard about introduced plants becoming weeds – well, now there's a weedy introduced fungus! (Well – maybe there are lots, only we are not aware of them!) This one is an ink cap, a group of dark-spored fungi whose caps deliquesce (auto-digest) into a black liquid as they mature.

Ink caps are decomposers, living off decaying plant or animal remains. Like all such fungi, they are an important part of the soil recycling system. Their generic name '*Coprinus*' comes from the fact many species can be found growing on dung. There are at least 15 native species in WA.

Over the last 10 years, observers have noticed a large, distinctive species in highly disturbed patches within numerous urban bushlands in the Perth region, particularly tuart and banksia woodlands. It is tall, up to 20cm, with a white stipe (stalk) while the cap is initially white, then it becomes black and weepy, sometimes with distinctive white patches attached. It has been identified as *Coprinopsis stangliana*, a rare but widespread European species found on calcareous soil. It had not been seen in WA previously, so, how did it get here? No suggestions given, but perhaps it could have been on the humus in plant pots?



If you are working in urban bushland this wet season, look for this interloper and be careful not to spread material that might contain its spores..

The illustration shows a closely related European species, the magpie fungus (*Coprinopsis picacea*).

Reference: Bougher, NL. 2006. *Coprinopsis stangliana* – a recently introduced fungus expanding in urban bushlands of the Perth region of Western Australia. *Nuytsia* 16: 3-10.

Did you know ...?

Why some animals' eyes shine at night?

As the time for the Great Marsupial Night Stalk comes around again, have you wondered what makes some animals' eyes shine in the torchlight beam? It is all part of their ability to 'see in the dark'.

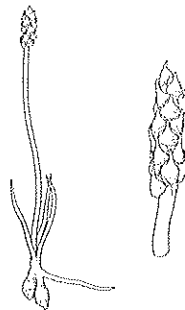
Some animals have a shiny layer, called the tapetum lucidum, behind the light-sensitive cells in the eye. When light enters their eyes, it passes over these cells, hits the shiny surface and reflects back a second time. Each light cell is thus stimulated twice, allowing the animal to see better in dim light. Humans (and birds) do not have this layer, and spiders' eyes reflect light quite differently.

IN BRIEF - FLORA

HOW ART THE MIGHTY FALLEN!

This winter, search winter-wet soils on granite swards and around freshwater swamps for the pygmy clubmoss (*Phylloglossum drummondii*). It often grows among damp moss, with other tiny plants such as trigger plants, bladderworts, sundews and *Centrolepis*. You'll have to get down on your knees though – this little feller is seldom taller than 10cm, if that, and so is very easy to miss.

It has been found from Dandaragan to Cape Arid, mainly in the higher rainfall areas, but occurs through the jarrah and karri forests and the wetter wandoo woodland, always in winter-wet sites. It has once been collected as far inland as Dryandra Woodland, on a granite sward, and it may be more widespread than we know. If you have a granite outcrop or a freshwater swamp in good condition, why not have a look for it? (It cannot take salinity.)



Clubmosses are in the family Lycopodiaceae (one of the 'fern allies') that reproduce by spores rather than flowers. Pygmy clubmoss has a tuft of bright yellow-green, grass-like, slightly fleshy leaves with a single stem carrying a cone containing spores. In summer it dies back to a small tuber.

So why is it especially interesting? Well, it is a survivor from dinosaur times, when its ancestors were huge trees forming vast forests across the swampy landscape. Their remains later became coal. In those days, 250–300 million years ago, lycopods were the dominant plants, but flowering plants with their more efficient physiology and reproductive systems have taken over. Now, all we have left in WA is this little fellow and two close relatives that look more like stiff mosses, one in the Denmark-Walpole region and the other in the Kimberley. Indeed, how art the mighty fallen!

Plants like this are 'Gondwanan relics' and the sites where they are still hanging on through all our millions of years of changing climate are 'refugia'. In WA there are many 'relictual species', both plants and animals, in shallow, winter-wet freshwater swamps and seepage areas. In terms of evolutionary biology – and general interest – they have an importance far greater than their areal extent would lead one to believe. If you have such a site on your property, guard it like the precious relic it is.

Penny Hussey

Illustration from 'Flora of the South West'.

GRANITITES – A PLANT OF THE 'FOREVER HILLS'

On some granite outcrops in the central and eastern Wheatbelt and into the Goldfields, occurs a small, dense, spiny shrub with an interesting history – *Granitites intangendus*. It appears, perhaps, that it is a survivor from that wet period 40 million years ago that was discussed in WW last October.



Granitites is not spectacular to look at. It is dense and spiny, with tiny pinkish-white flowers well hidden in the bush. The fruits, though small, are quite distinctive, superficially resembling little black

acorns, containing seeds with bright red arils. Little is known about its natural history, but other south-west plants with red arils rely on ants to disperse the seeds. The ants carry them away and eat the fatty arils, but cast the seeds onto their underground waste dumps, perfectly positioned away from other predators, ready to be stimulated into growth by chemicals in the smoke of a bushfire. Maybe this also happens with *Granitites*?

The plant is a member of the Buckthorn family, Rhamnaceae, which has a number of species spread throughout the south-west of WA, mostly growing in harsh laterite or sandplain environments. This plant was first named *Pomaderris intangenda* by Baron von Mueller in 1876, from a specimen collected at Mt Ridley, north of Esperance. Later, in 1899, S. Moore named a specimen from Donkey Rocks at Goongarrie, *Cryptandra petraea*. As the first name given, *Pomaderris intangenda* it remained, until Herbarium botanist Barbara Rye started to study the plant, and realized that it wasn't closely related to the south-west Rhamnaceae at all; its closest relative is a genus called *Alphitonia*, a tropical, rain forest genus. So she called it *Granitites intangendus* – 'granitites' because it grows on granite. Genetic studies confirmed this relationship.

What does this mean in evolutionary terms?

In the Cretaceous and Tertiary eras, some 40-30 million years ago, when south-west WA was further south, it was colder and wetter. The vegetation was temperate rainforest. But sticking up out of that rainforest were granite hills, just as they stand up like islands amid the wheatfields today. *Granitites* is found only on the

MEMBERS PAGE

THOSE DAM SWANS!

Fostering and Assistance for Wildlife Needing Aid (FAWNA Inc) had received into care approximately 80 cygnets, apparently as a result of parents abandoning them and heading inland when food on the coast became scarce (came to the coast because of lack of rain/food inland, but after rain moved back?). These abandoned cygnets were cared for by FAWNA wildlife carers but, due to the large numbers already on waterways along the coast, FAWNA were seeking other suitable release sites.



As the dam on our property (in the Kirup area) had some native vegetation around it and was of a suitable size it was decided to release 22 cygnets there. The cygnets stayed in a pen that had been erected on the edge and into part of the dam for three days and were then released. They were fed twice a day while in the pen and this was continued after their release. Although they were whistled

to at first to let them know it was feed time they rapidly got to know the sound of an approaching vehicle usually meant food.

Some of the fully feathered cygnets did not remain long and, after a short move to some ponds on the property next door, eventually flew off. Two cygnets were lost to predators when a family of four wedge-tailed eagles decided to place young swan on their diet before

moving on to other parts of their territory. There are still nine almost fully grown swans on the dam that are not yet showing any inclination to move on, probably because we still give them a (gradually reducing) quantity of feed once a day, and even a few of the resident coots and ducks now come in to see if there is a free snack in the afternoon.

Peter Vickridge

continued from page 13

Granitites

highest of these hills, eg Billycatting, Nungarin Rock, The Humps and the aforementioned Mt. Ridley. Rowl Twidale and Jenny Bourne have shown that these outcrops have stood out from the surrounding plain since at least the Cretaceous (see WW 8/2) – in other words, they have been ‘forever hills’.

So it seems likely that *Granitites* evolved as a specialist in the difficult granite rock habitat all those millions of years ago, and has managed to hang on in a drying landscape because run-off from the rock concentrates water at its roots.

Another fascinating relictual genus that helps to confirm south-west WA’s ‘biodiversity hot spot’ status.

Penny Hussey

*Illustration: Margaret Pieroni
Full reference list available – Ed.*

WANDOO CROWN DECLINE SITUATION STATEMENT

The Wandoo Recovery Group (WRG) has released a ‘situation statement’ concerning the health of Wandoo as at July 2006. It reports on the research and data compilation that has been completed or is underway. If you would like to know more, contact the WRG Executive Officer, Liz Manning, on 0427 441 482 or email lizmanning@bigpond.com

Did you know ...?

why we sometimes feel we need a ‘chocolate fix’?

Production of a neurotransmitter chemical called dopamine, associated with feelings of pleasure and elation, is increased when chocolate is eaten. The chemical is thought to be connected with the processes involved in learning, memory – and addiction. (What’s this got to do with *LFW*? Nothing really, but I thought the chocaholics amongst us might be interested! – Ed.)

NEW BOOKS

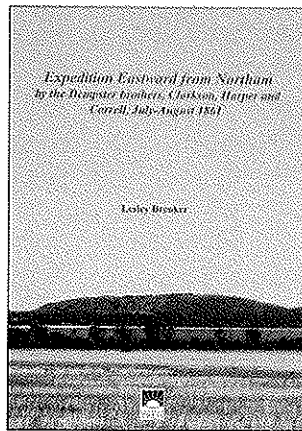
Expedition Eastward from Northam by the Dempster brothers, Clarkson, Harper and Correll, July-August 1861

Lesley Brooker

Pub: 2006. Hesperion Press

Cost: \$30.00 + \$2.50 p&h, from good booksellers or publisher: books@hesperionpress.com

This book follows the route of the first European expedition east from Northam into the Wheatbelt and Yilgarn. A group of settlers and their Aboriginal guide set out eastwards, looking for new agricultural land. Although they were the first Europeans to travel as far as the Lake Deborah area, their exploits have been overshadowed by the later official journeys of C. C. Hunt. In this



book, each day's travel is examined, and the locations of landmarks, wells and campsites plotted onto modern maps. The plants and animals described by the explorers are identified and Harper's plant collection (now in the Melbourne Herbarium) is illustrated. Names that the explorers gave to landscape features are placed in their historical context and the importance of the local indigenous guide to the success of the expedition is explained.

There is a lot of fascinating information in this book, which casts new light on a forgotten period of exploration history. It will be especially interesting to everyone who knows and loves the Central and Eastern Wheatbelt.

The State of Australia's Birds 2006 – Invasive Species

Pub: Birds Australia, Supplement to Wingspan.

For copies of this and previous reports: www.birdsaustralia.com.au/wingspan/supplements.html

This publication is packed with information on the effect of introduced species – both native and exotic – on birds across Australia. Attractive and well-illustrated, it should be read by everyone concerned with natural wildlife.

Reptiles of the Western Australian Goldfields

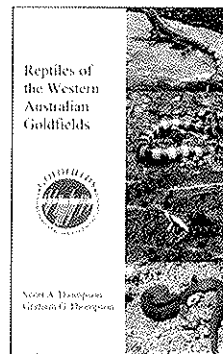
Scott Thompson and Graham Thompson

Pub: Goldfields Environmental Management Group

Cost: \$25 + \$5 postage from the Treasurer, GEMG, PO Box 2414, Boulder, WA 6430.

This attractive book covers all the reptiles known to occur in the Goldfields region of WA. It includes dragon lizards, geckos, legless lizards, skinks, monitors and snakes.

The book is not a scientific guide – there are no detailed keys for identification, for example – rather, the user would be expected to leaf through, looking for a picture, description and location that fits the animal you have seen. In several instances, photos show different colour forms of the animal,



helping to make identification easier. Technical terms have been avoided wherever possible, but a glossary is included if the reader comes across an unfamiliar word.

Although the focus is the Goldfields, many of these species will also occur in the eastern Wheatbelt, and even further afield. So, if you want to put a name to that speedy little dragon, racing away into hiding, this is the book for you!

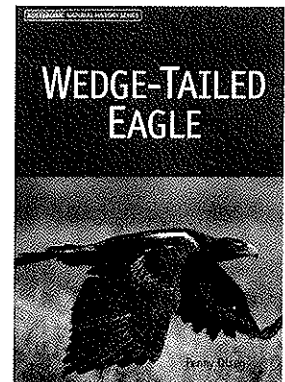
Wedge-tailed Eagle

Penny Olsen

Pub: 2005, CSIRO, Australian Natural History Series

Cost: \$ 39.95 from good bookstores or CSIRO direct

If you admire these majestic birds, you will enjoy this comprehensive overview of Australia's largest true eagle. Not only does it cover obvious topics such as hunting and breeding, but it also describes courting, playing and even having a bath.



The author is one of the world's foremost authorities on raptors, and has studied birds of prey as well as caring for hundreds of sick or injured animals. The book is written in clear, non-scientific prose (though there are 13 pages of references to follow up if you want to go into the science) and illustrated with photographs and evocative sketches. Recommended reading for those who would like to learn about eagles as personalities.

CSIRO has a large publishing programme, and many of the books have agricultural or natural history themes. Check out their website, there could be something that interests you. www.publish.csiro.au