Woodland Wanderings

Newsletter of the Grassy Box Woodlands Conservation Management Network

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# Safe House

*By Mikla Lewis*

Rosemont is our 105 hectare property on the outskirts of Grenfell, on the Central Western Slopes of NSW. Situated on a scenic road leading to the Weddin Mountains National Park, the property straddles a ridge of bushland dominated by Mugga Ironbark, Red Stringybark and Cypress Pine, before sloping down to cleared pastoral land and remnant Grey and White Box woodlands.

Rosemont commands some of the most spectacular views of the Grenfell district. We bought the property in 2002 because of the views, the wildlife and the remnant bushland. The Superb Parrot is present all year round, with flocks of over a hundred birds sometimes present in spring.

An old, ramshackle fibro cottage, unoccupied and derelict for some 20 years, stands on the property. It has been our intention to renovate it and move in, but commitments have kept us living in town until now.

When we bought Rosemont we were delighted to discover that although uninhabitable for humans, the old cottage provided a 'safe house' for four species of small, opportunistic birds who nested within its walls and garden, safe from larger birds such as Currawongs and birds of prey. For the last three breeding seasons we have had a 'bird's eye view' of their nesting activities, as we have visited the property daily.

A missing glass louvre and broken flyscreen on a front window provide a perfect entry and exit for a pair of Willie Wagtails, into what was once a bedroom. Perched upon an old curtain rod is a little nest, held together with silken thread and currently home to three babies. Once fledged, the birds will learn to fly in the safety of the room, until, encouraged by the calling of the parents, they will fly out the window and into the protection of a nearby plum tree.

A pair of Striated Pardalotes fly constantly in and out of a hole in the side of the house. Shining a torch into the 4cm by 3cm hole, which was originally made for a water pipe to pass through, reveals a wooden noggin lined with dried grass, upon which sits an adult bird. Although the nestlings remain hidden inside the hole, they will reveal themselves in time, perching alongside the parents on the top branches of an ancient, gnarled exotic cypress which brushes against the house only metres away.

The cypress is also utilised by a pair of Superb Fairy-wrens as their nesting site. Safe inside the dense, impenetrable foliage, four babies are reared. Once fledged, a huge, matted climbing rose bush provides protection from weather and predators.

The window on the enclosed back verandah is boarded up with a piece of corrugated iron, leaving a gap 12cm deep by 80cm wide at the top; enough room for a pair of Welcome Swallows to fly in and out. Their mud nest is precariously placed on a metal electrical conduit just below the ceiling. Curious little heads peep over the rim of the nest and soon, novice but skilful fliers will negotiate the gap in the window and fly to freedom.

And so these four resourceful pairs of bird will have successfully completed their nesting tasks for another year, as they have done for so many years, in the safety of the tumbledown cottage.

Unlike us, they are blissfully unaware that this idyllic scenario is about to come to an end, for we wait patiently for the last fledgling to vacate the premises so that we can begin the long, tedious task of renovation. The broken window panes will be replaced, the hole in the side of the house patched up and the ugly old cypress removed to make way for an extension.

How incongruous it seems that we bought Rosemont to protect and preserve the wildlife and their habitat. For no matter how noble and idyllic one's intentions are, it seems almost inevitable that the mere presence of humans will impact in some way on these other creatures with whom we share our existence.

# Welcome to Issue 3 of Woodland Wondering

*Toni McLeish—Editor*

Another year has passed too quickly, leaving more tasks to be added to the New Year's resolution list. One task, I'm pleased to say that seems to be on track is the increase of our network membership. The current membership is 368 land holders out of a total of 693 registered on the mailing list. This mailing list also includes a mix of local governments, Rural Lands Protection Boards, scientists, educators, consultants, government and non- government agency staff, all with an interest in achieving conservation in an agricultural landscape.

Imagine the debates we can have in our email group with this diversity of views and brilliant minds. The email group will make it possible for you to present your view or pose a question to these members. Lets start talking!! In order to make this happen I first need you to send me an email with "join email group" in the subject line, and if you would like start the ball rolling with a comment or question, please do.

I would like to also remind you that you can tell the world that you are a member of our net work by displaying a free membership sign on your gate (if you receive this newsletter you are considered a member). This could help you to network with other member's in your local area- you may be surprised how many there are.

As we speak, member site surveys for flora and woodland birds are being undertaken in the SW Slopes. Many thanks to those members who agreed to the survey on their land. The information gathered will be used to gain a clearer understanding of the health of the remnants and the requirements of the associated woodland bird species. I hope the response next year in the North West and Central West will be as positive.

We have a draft website under way and would appreciate your comments via the email group in the New Year, at which stage I will let you know the access address.

Will monitoring find the weakest link in our woodland management? I am proposing that we explore this question, look at monitoring techniques and the usefulness of the data collected, April 27th & 28 th 2005 at a forum in the Orange area. Details will be posted out later!

I hope by now you have all had rain and that it continues to fall after harvest.

**A VERY MERRY CHRISTMAS TO YOU ALL AND A PROSPEROUS NEW YEAR!**







# Paterson's curse (Echium platagineum)

## EXTRACT FROM CSIRO ENTOMOLOGY WEB SITE

**WEBSITE** www.ento.csiro.au/weeds/patcurse/index.html

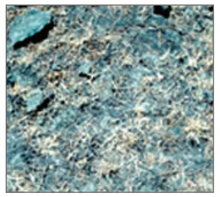
### The Problem

Paterson's curse is an introduced winter annual pasture weed of Mediterranean origin. Free of native Mediterranean plant and insect communities, it has become one of the dominant pasture weeds of temperate Australia.

In Australia the weed produces 10,000's of seed by late spring which sit dormant over summer waiting for rain when they germinate in there 1,000's. The seedlings grow quickly, develop a large taproot making them resistant to drought and form a flat rosette out competing other germinating plant species. By spring it can completely dominate a paddock resulting in the endless fields of purple we see in spring each year.

Although relatively nutritious in terms of digestible nutrients, and valued as a pasture plant in some places, Paterson's curse contains pyrrolizidine alkaloids that are poisonous to livestock, destroying the liver of the animal, reducing weight gain and wool clip and in severe cases leads to death. Paterson's curse was estimated to occur on over 30 million hectares in Australia (in 1985) and cost the wool and meat industries $125 million each year (in 2002).

*In spring 90% if the pature can be Paterson's curse producing up to 30,000 seeds per square metre.*



*Late summer/autumn rain stimulate germination and the emergence of seedlings; up to 2000 per square metre.*

*Rosette quickly dominate the bare ground in autum/ winter outcompeting other germinating plant species.*

*Seeds (up to 30,000 pere square metre) remain domant in the soil for at least ten years.*

### The project

Six biological control agents are spreading across the weed's distribution. A leaf-mining moth was first released in 1988 and is widely established although providing little impact. The crown weevil was first released in 1990 and is currently the most damaging agent killing the weed, often outright on a farm scale, at a number of sites in NSW, Victoria and South Australia. The root weevil and the flea beetle are both established in all southern mainland States and the flea beetle is starting to kill Paterson's curse before it can flower at some sites in NSW and Victoria. The flower beetle and the stem-boring beetle, are also established in all southern mainland states but at this stage they are not reducing the seed set of Paterson's curse.

The four most promising insects are the focus of a nation-wide redistribution program. The crown weevil is most effective in high rainfall low grazing pressure situations. The root weevil tolerates drier regions and since it feeds in the taproot below ground also performs better in more heavily grazed pasture. The flea beetle is the best insect for heavy grazing and extended summer/autumn drought conditions and can survive under ground for six months without feeding. The pollen beetle complements the damage of the root feeders by destroying seeds directly in spring and does best in regions of extended flowering, typically regions of higher rainfall. All four species of insect are available in the southern mainland States through collaborating state departments.

### Contact key people:

Matthew Smyth National Co-ordinator
Biological control of Echium spp.
CSIRO Entomology
Ph: 02 6246 4249
Email: matthew.smyth@csiro.au

Paul Sullivan Collaborator
NSW Agriculture, Tamworth
Ph: 02 6763 1175

*Mogulones geographicus Root weevil*

# Acacia

The name acacia is derived from the latin word akis, which means a sharp, because of its thorns. The Golden wattle (*Acacia pycnantha*) is Australia's floral emblem however the genus Acacia is not confined to this country. They also occur in Africa and throughout the tropics and subtropics of the world. Of the estimated 1350 known species, close to 1000 are native to Australia, where they occur from rainforests to the drier parts of the interior.

Photo from the website of the Australian National Botanic Gardens, details on back page.

*"The derivation of the term "wattle" for Australian Acacias is interesting. "Wattle" is an old English word meaning interlaced rods and twigs. In the early years of the European settlement in Australia, shelters were constructed of flexible sticks woven together and plastered with mud, a technique known as "wattle and daub" and the wood most commonly used came from a plant now called Callicoma serratifolia which became known as "Black wattle". Callicoma has Acacia-like flowers but is not closely related to Acacia.*

*However, because of the similarity in flowers, the term "wattle" eventually became associated with all Australian acacias and, even more confusingly, "Black wattle" is also applied to some Acacia species."*

Australian acacias are distinct from those found elsewhere because they rarely have spines or thorns, though some appear spiky because they have sharply pointed leaves, Wattle "leaves" are actually "phyllodes. As the trees develop, the true leaves are replaced with "phyllodes" which are flattened leaf stalks. In order to cope with the dry Australian environment some acacias only have true leaves at the seedling stage, they then contract the leaf lamina and expand the stalk to form a modified leaf called a phyllode, which then takes over the leaf function of photosynthesis and respiration. *(references on back page)*

Acacias can be apart of the Grassy Box Woodland community occurring generally as scattered individuals with some of the most commonly found species listed below. Note species mix changes depending on your geographic location and/or soil type-

- *Acacia dealbata* Silver Wattle
- *Acacia decurrens* Black wattle
- *Acacia decora* Western Silver Wattle
- *Acacia genistifolia* Early Wattle
- *Acacia implexa* Hickory Wattle
- *Acacia mearnsii* Late Black wattle
- *Acacia mollifolia* Hairy Silver Wattle
- *Acacia rubida* Red-stemmed Wattle
- *Acacia verniciflua* Varnish Wattle

## References

Australian Botanic Garden/ Centre for Plant Biodiversity Research **Greening the Grainbelt project**

**http://farrer.riv.csu.edu.au/ASGAP/acacia.html**





*Acacia Atrox — Myallcreek Wattle*

## An undescribed Acacia species found in NW NSW

- Local farmer concerned about woody weed !
- Local experts send sample to Royal Botanic Gardens.
- New species described, Acacia atrox—Myall Creek Wattle.
- Known to exist only on the one site —listed as endangered
- Owner willing to set aside an area of the plant

Photo by Wendy Hawes

## Acacia atrox

This extremely spiny acacia prefers the deeper soils typical of Grassy Box Woodlands, so it is no surprise that it forms the mid story of a White and Grey Box grassy woodland. Here the acacia plays an important role, as many of the small woodland birds find that its spiny nature makes it a secure nesting site.

The plants appear to be spread by suckering, possibly due to soil disturbance occurring during stick picking or pasture improvement. Lack of pod formation after flowering appears responsible for apparent poor seed production with no individuals further down the local catchment.

With the cooperation of the landholder, funding was sourced from NPWS, Bushcare and DLWC to fence an area off for continued investigation and scientific research. More information is required on the species' biology and ecology, including reproduction strategies and life cycle in order to implement an appropriate management regime. Investigation into the existence of other populations and the possible threats to the species are imperative for its continued survial..

Photo by Peter Croft

Thanks to Peter Croft DEC and Wendy Hawes DIPNR for providing the information for this article.

*Hawes W, O'Keefe P & J Kewley (2000) Acacia sp "Myall Creek" (Millar s.n. 25 May 2000): Site Inspection and Sample Collection. Department of Land and Water Conservation, Inverell. Unpublished report.*

*Kodela P.G (2001) Acacia atrox (Fabaceae: Mimosoideae), a new rare species from the North Western Slopes, New South Wales. Telopea 9(2):2001 pp 415-491*

*Damon Oliver, Threatened Spicies Unit, DEC Queanbeyan*

# Lets increase the conversation efforts for our woodland birds

There is no doubt that our temperate woodlands deserve the same high conservation profile as coastal rainforests. These highly threatened ecosystems are renowned for supporting a high level of biodiversity and habitats for a large number of threatened species. About 75% of all temperate woodlands in southern Australia have been cleared for agriculture and grazing. In some regions this figure is as high as 90-95%. Woodlands now mostly occur as small fragments that are isolated from each other and are often degraded by weeds and inappropriate grazing. There is no doubt that many woodland animals and plants have declined or even gone extinct locally due to loss, fragmentation and degradation of their habitat. But things are starting to change for the better...

Over the last thirty years research into the ecology and threats of woodland flora and fauna has provided critical information about how to better manage woodlands for conservation outcomes in agricultural landscapes. In many cases this research was conducted with the support and assistance of landholders on their properties. There are now some very useful management guides and books available to landholders and other community members that provide useful and practical advice about improving woodlands. *(see page 10)*

A small number of dedicated woodland education and extension officers in New South Wales, ACT and Victoria have run outstanding workshops, farm visits and media activities to promote woodland bird conservation. One of the most successful programs was run by the late Judie Peet in the central west of NSW, funded by NPWS. Sadly, Judie passed away in June but her fantastic efforts to encourage landholders and other members of the community to become involved in woodland bird conservation has a left a lasting legacy. We need to keep up the momentum that Judie and others have started otherwise our woodland birds will continue to decline.

The increased awareness of the plight of woodlands and the importance of sustainable agriculture has stimulated some landholders to improve the management of their woodland remnants. Replanting of cleared areas to re-connect woodland patches, strategic grazing of woodlands to allow natural regeneration of trees, shrubs and grasses and retaining dead fallen timber are just some of the actions that landholders have undertaken without impacting on their on-farm management practices. There are some outstanding examples from the Bundarra-Barraba region, Capertee Valley, Cowra, Boorowa, Holbrook and Savernake, to name a few, where landholders are committed to protecting and improving their woodland vegetation at a landscape or regional scale. Most of these landholders would agree that it has been a change for the better, because they are improving soil, water and ecosystem health and increasing overall farm productivity. It is also an investment in the future, particularly for the next generation of landholders. School groups in regional areas have helped with tree planting which gives kids a greater appreciation for conservation and nature. By planting trees or allowing regeneration there is long-term resource for both biodiversity and also for sustainable resource (e.g. firewood, timber, honey) use.

Most farmers may not think of themselves as 'greenies' but they love nature and particularly their birds, so the added bonus of managing woodlands is that they are seeing fauna species moving back to their farms in the short to medium term. However, the bottom line is that we need more landholders to become involved in this long-term commitment with greater support and assistance from the whole community. Contact your Catchment Management authority for support.

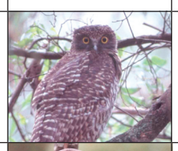
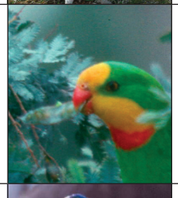
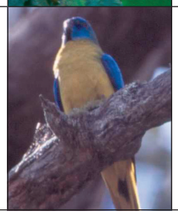
## Current status of woodland birds

Our woodlands are home to an amazing diversity of bird species because of their proximity between the wet coastal and ranges area and the semi-arid areas. Alarmingly, at least one quarter of woodland-dependent bird species in southern Australia are currently threatened or near-threatened. In New South Wales, 20 woodland-dependent bird species are currently listed as threatened *(see Table 1)*. Some woodland bird ecologists are predicting that as many as 50% of all woodland birds will be threatened and some may be extinct by the end of this century. A further 20 species have been identified in recent literature as likely to be threatened in the near future *(see Table 2)*. Most recently, the Second Atlas of Australian Birds has revealed that 33 species of woodland-dependent birds have shown significant decreases in reporting rates in New South Wales in just 20 years *(Table 3)*. Lets work together to make sure these species don't also end up on the threatened species list!

| WOODLAND BIRD SPECIES | | HABITATS | MANAGEMENT ACTIONS |
|---|---|---|---|
| BLACK-CHINNED HONEYEATER (V) | | **NECTAR-LERP FEEDER** — Small honeyeater that is usually seen at the very top of the canopy of tall trees in relatively large (>10 ha) woodland remnants. Feeds on nectar and lerp in a variety of tree species, especially ironbarks, red gums and white box | NECTAR-LERP AND MISTLETOE-FEEDERS AND OTHER CANOPY DWELLERS<br>Honeyeaters, Swift Parrots, Lorikeets and Woodswallows need large nectar and lerp rich trees to feed in. While big trees are important, so too are young regrowth trees which provide a high abundance of lerps and roosting habitat. Recent studies have also shown that woodlands with abundant mistletoe support high numbers of bird species and are home to the Painted Honeyeater. Birds of prey also need tall trees with dense foliage for nesting and roosting. Here's what can be done:<br>Retain woodland and forest patches with a mixture of large trees and smaller regrowth trees and regenerating saplings.<br>Fencing off these patches to keep stock out at strategic times is recommended.<br>Increasing the size of woodland areas can be done by fencing cleared areas close to existing woodland areas to allow natural regeneration – this is preferable to and cheaper than replanting trees and shrubs.<br>Reconnecting patches of woodland to allow fauna to move between them can be achieved through fencing and replanting of locally indigenous flora species<br>Retain an adequate number of mistletoes – in other words, do not remove all mistletoes as trees generally tolerate a moderate level of infestation. Often the cause of dieback in eucalypts is not mistletoes but rather a combination of factors such as salinity, Phytophthera (root fungus) dieback and over clearing of woodland patches. |
| REGENT HONEYEATER (E) |  | **NECTAR-LERP FEEDER** — A flagship threatened woodland bird that has been the focus of research and conservation efforts for more than a decade. Nests in tall eucalypts and river she-oaks, sometimes in mistletoes. Forages on nectar, lerp, mistletoe fruit and insects often in the biggest trees in a woodland patch. Good quality shrub layer important for foraging and nest material. *(photo by T Axelsen)* | |
| SWIFT PARROT (E) |  | **NECTAR-LERP FEEDER** — An annual autumn-winter migratory visitor from Tasmania. Forages mainly in canopy of woodlands that are flowering or have a high abundance of lerp - the sugary cap of leaf-sucking insects. Also forages in shrub layer, particularly on wattles. *(photo by Nevil Lazarus)* | |
| PAINTED HONEYEATER (V) |  | **MISTLETOE SPECIALIST** — This attractive honeyeater with a distinctive "Georgie" call is heavily reliant on woodlands that support high densities of mistletoes for food and nesting. Often seen on the edges of woodlands where mistletoes are at highest abundance. Can occur in scattered woodlands, but prefers intact patches of vegetation. *(photo by Ted Schimba)* | |
| SQUARE-TAILED KITE (V) | | **CANOPY-DWELLER** — Nests in tall mature trees that are often close to watercourses. Forages amongst the canopy and edges of woodlands for small birds. Occupies a huge home range up to 100 km2 | |

(E) Endangered — likely to become extinct unless the circumstances and factors threatening its survival cease to operate.

(V) Vulnerable — likely to become Endangered unless the circumstances and factors threatening its survial cease to operate.

| | | |
|---|---|---|
| BARKING OWL (V) | | **HOLLOW-NESTER** — Makes a distinctive barking call at night. Needs large hollow-bearing trees for nesting and trees with dense foliage for roosting. |
| POWERFUL OWL (V) |  | **HOLLOW-NESTER** — Lives in relatively large patches of tall forest and woodland and nests in large hollow-bearing trees. Needs good quality habitat with high densities of possums and gliders. *(photo by Ted Schimba)* |
| MASKED OWL (V) |  | **HOLLOW-NESTER** — Very few of these elusive birds have been seen in the temperate woodlands. Needs large hollow-bearing trees for nesting and trees with dense foliage for roosting. *(photo by Beate Bond)* |
| GLOSSY BLACK-COCKATOO (V) |  | **HOLLOW-NESTER** — Magnificent cockatoo that has been the focus of conservation activities by the Dubbo Field Nats. Nests in large dead or living hollow-bearing trees, often along watercourses or drainage lines. Relies specifically on the seeds of a small number of species of Allocasuarina for food. *(photo by Micheal Murphy)* |
| PINK COCKATOO (V) |  | **HOLLOW-NESTER** —Beautiful bird that occurs mostly in the western arid and semi-arid woodlands. Nests in mature hollow-bearing trees in mallee or in woodland with Belah, Cypress Pine or eucalypts. Forages in open grassy areas and also in shrubs and trees. *(photo by Peter Christie)* |
| SUPERB PARROT (V) |  | **HOLLOW-NESTER** — Spectacular fast-flying green parrot. Nests in large dead and living eucalypts, often along major watercourses. Forages on ground, in crops, and in tree canopy and mistletoes. *(photo by Peter Christie)* |
| TURQUOISE PARROT (V) |  | **HOLLOW-NESTER** — Gorgeous small parrot that nests in tree hollows, stumps and hollow fence posts. Feeds in open grassy areas close to the edge of woodlands. In some place the species has adapted to foraging on introduced grasses and Capeweed, but still prefers diverse native ground cover. *(photo by Ted Schimba)* |

## HOLLOW-NESTERS

Our woodland owls, parrots, treecreepers and bats roost and nest in hollows of all shapes and sizes in both dead and living trees, tree stumps and fallen timber. Hollows may take a hundred or more years to form, so if we continue losing them it will take several human generations at least to get them back in the landscape - by then our birds will be extinct! Here are some suggestions:
Leave dead trees with hollows to stand - they might stay there for another hundred years!
Protect hollow-bearing living trees from threats such as stock ring barking, fires and compaction of soil. Fencing off areas around these trees to allow natural regeneration provides a long term insurance policy for future generations of hollow-nesters. Paddock trees are also an important aesthetic feature in the landscape that need to be protected – we will miss them if they all go!
Resist 'tidying up' and burning dead fallen timber and stumps – it may look a bit messy but birds, small mammals and reptiles live in and under timber on the ground.

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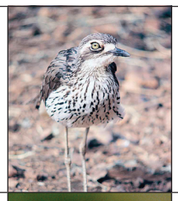
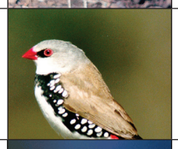
|---|---|---|
| WHITE-BROWED TREECREEPER (E) | | **HOLLOW-NESTER** — Occurs in the drier woodlands around Griffith and south of the Lachlan River in the Carrathool LGA. Forages on tree trunks for insects and on dead fallen timber. Nests in tree hollows, tree stumps and dead fallen timber with hollows. Lives in well-connected patches of woodland. |
| BROWN TREECREEPER (V) |  | **HOLLOW-NESTER** — Australia's equivalent of the Woodpecker, often seen foraging along tree trunks for insects and on dead fallen timber. Nests in tree hollows, tree stumps and dead fallen timber with hollows. Needs patches of woodland greater than 5 ha that are well-connected to other patches. *(photo by Helen Fallow)* |





| | | |
|---|---|---|
| BUSH STONE-CURLEW (E) |  | **GROUND-DWELLER** — A favourite with landholders, especially those that still have birds in their area. Older landholders can often remember hearing their eerie call at night. Lives in open grassy woodland with fallen dead timber and abundant leaf litter. Susceptible to fox predation *(photo by Ross Bennett)* |
| DIAMOND FIRETAIL (V) |  | **GROUND-DWELLER** — Beautiful finch which requires good quality native grassland for foraging and woodland with good shrub cover for nesting. Prefers larger woodland remnants greater than 5 ha. *(photo by Helen Fallow)* |
| GREY-CROWNED BABBLER (V) |  | **GROUND-DWELLER** — one of the real characters of the bird world, with its distinctive call and family group behaviour. Builds nests and roosting 'drays' in dense shrubs. Forages in both shrubs and on open ground close to woodland edges. *(photo by Anthony Overs)* |
| HOODED ROBIN (V) |  | **GROUND-DWELLER** — Recently-listed as threatened, this species needs patches of woodland that are at least 10 hectares in size, with a decent mix of shrubs, grasses and timber on the ground. *(photo by Helen Fallow)* |
| SPECKLED WARBLER (V) |  | **GROUND-DWELLER** — A cryptic bird that needs a mixture of sparse shrubs, patches of tall dense grass and regrowth eucalypts. Can occur in patches as small as one hectare provided they are close to larger patches. Prefers larger remnants greater than 5 hectares. *(photo by Helen Fallow)* |
| GILBERT'S WHISTLER (V) | | **SHRUB-DWELLER** —This songster of the bush lives in woodland and mallee with a dense shrub layer. Nests in shrubs and forages in shrubs and on the ground. |

**HAZARD REDUCTION BURNING IS ANOTHER PRACTICE THAT, IF DONE TOO FREQUENTLY, CAN SIGNIFICANTLY REDUCE THE VIABILITY OF UNDERSTOREY SHRUBS AND GRASSES AND REMOVES DEAD FALLEN TIMBER AND LEAF LITTER WHICH REDUCES THE HABITAT QUALITY FOR WOODLAND BIRDS. MATURE TREES CAN ALSO BE KILLED IF BURNS ARE TOO HOT. LANDHOLDERS ARE ENCOURAGED NOT TO BURN OFF GRASSES, SHRUBS AND FALLEN TIMBER EVERY YEAR.**

## GROUND-DWELLERS, SHRUB-DWELLERS

Many of the woodland birds that feed and nest on or near the ground need structure and diversity in the ground and understorey layers. Even birds that usually forage and nest in the canopy of trees also come down to the shrub and grass layer to feed on insects, seeds and fruits. Landholders can remove stock at strategic times of the year (usually mid spring and summer) to allow grasses, shrubs and trees to seed and regenerate. At other times of the year, grazing can occur and can be a useful way of reducing the biomass of exotic grass species, which in turn will allow native grasses a chance to increase in abundance. In some cases, landholders may need to fence off woodland areas to keep stock out at key times of the year. Another important habitat component for ground-dwelling birds is fallen timber and leaf litter which provide shelter and foraging substrates, particularly for robins. Landholders are encouraged to leave as much fallen timber on the ground as possible to provide habitat for birds, reptiles and small mammals. Weeds also threaten the quality of the understorey layer in our woodlands, so landholders are encouraged to control weeds to allow native grasses and shrubs to regenerate in woodland patches.

The ground-dwelling Bush Stone-curlew, reptiles, frogs and small mammals are particularly vulnerable to fox predation. Many landholders bait for foxes during lambing season, which provides a temporary reprieve. However, in order to get on top of foxes all year round for curlews and other small ground-dwelling fauna, baiting is recommended at least four, but ideally six times per year. This requires a lot of time and money for baits and labour. To maximise the effectiveness of baiting, it really needs to be done in a co-ordinated manner by as many neighbouring landholders as possible, otherwise foxes just keep turning up from unbaited areas.

*Table 2 & 3*

### Table 2 Woodland birds considered likely to be threatened in the near future

| | |
|---|---|
| Emu1, 2 | White-browed Babbler1 |
| Peaceful Dove2 | Varied Sittella1 |
| Spotted Nightjar2 | Crested Shrike-tit1 |
| Apostlebird2 | Crested Bellbird1 |
| Splendid Fairy-wren2 | Rufous Whistler1 |
| Chestnut-rumped Thornbill2 | Restless Flycatcher1 |
| Southern Whiteface1, 2 | White-browed Woodswallow1 |
| Jacky Winter1, 2 | Dusky Woodswallow1 |
| Red-capped Robin1, 2 | Gang-gang Cockatoo |
| Eastern Yellow Robin1 | |

**NB** some of these species are already listed as threatened in the ACT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### Examples of Management References:


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**Wilson C, Reid J, Baker J & Tidemann C (2004)**. Cowra blue sky dreaming. Wingspan 14 (1) 14-15. **www.birdsaustralia.com.au** (03) 9882 2622


### Table 3 declines in reporting rates of woodland birds in the last 20 years in NSW (from G. Barrett and A. Silcocks 2002 )

| | |
|---|---|
| Dollarbird | -21.2% |
| Scarlet Robin | -54.5% |
| Chestnut-crowned Babbler | -33.0% |
| Varied Sittella | -43.7% |
| Restless Flycatcher | -31.6% |
| Magpie-lark | -16.4% |
| Masked Woodswallow | -46.3% |
| White-browed Woodswallow | -61.1% |
| Black-faced Woodswallow | -65.4% |
| Dusky Woodswallow | -41.4% |
| Little Woodswallow | -36.9% |
| Diamond Firetail (V) | -39.0% |
| Tree Martin | -28.6% |
| Emu | -38.7% |
| Bush Stone-curlew (E) | -63.2% |
| Peaceful Dove | -13.2% |
| Gang-gang Cockatoo | -43.6% |
| Pink Cockatoo (V) | -30.7% |
| Brush Cuckoo | -23.1% |
| Southern Boobook | -25.0% |
| Barn Owl | -61.0% |
| Laughing Kookaburra | -7.6% |
| Yellow-rumped Thornbill | -24.6% |
| Striated Thornbill | -17.0% |
| Painted Honeyeater (V) | -39.3% |
| Flame Robin | -55.8% |
| Hooded Robin (V) | -41.2% |
| Spotted Quail-thrush | -27.5% |
| Crested Shrike-tit | -18.0% |
| White-winged Triller | -40.1% |
| Grey Currawong | -31.5% |
| White-winged Chough | -21.4% |
| Double-barred Finch | -19.7% |
| Red-browed Finch | -13.7% |
| Rufous Songlark | -19.5% |


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*Allan & Stacey Franks*

# What is a hollow worth?

**WEBSITE** www.hollowloghomes.com.au

This document assesses the value of a hollow bearing tree for its hollow bearing characteristics only; it does not take into account such values as: food source to wildlife, nesting opportunities for nest building birds, ground stabilization, water runoff mitigation, carbon consumption, shade value, historic or aesthetic value. This document is the educated opinion only of the author and should be taken as such for further information other expert opinions should be sought.

A 10 year old tree can support one small nest box such as those used by lorikeets, micro bats or sugar/squirrel gliders provided that the habitat is either intact or has been rehabilitated. For each subsequent 10 years of growth another nest box may be added to the tree.

In the wild it is reasonable to assume that a two hundred year old tree could have in excess of 20 hollows of various sizes it would be feasible therefore to suppose that one hollow would be added for each 10 years of life It would of course not be necessary to place nest boxes in a tree of this age as the nest holes would be well established within the trunk and branches of the tree. However, if you had to replace this hollow tree with recruits without hollows (at least for the first 200 years of life) then you would need to hang a single box in 20 replacement trees for a period of at least 200 years. Boxes would need to be replaced every 10 years to ensure quality of the hollow habitat.

## The formula

If the approximate age of the tree is 200 years then we consider it to be equivalent to 20 nest boxes at an average price of $100/box = $2000

Each nest box will need to be replaced every 10 years.

If we plant the same species of tree in the same area given correct growing conditions we can expect that in 200 - 300 years the nest boxes will be replaced by natural hollows[1] or if we leave the tree in place it will live for at least another 300 years.

Average Price of Installed nest box ($100) x (approximate age of tree ÷ 10) x number of years until new tree replaces old one or tree will live (say 300) @2% inflation per annum

**Therefore the value of the tree in terms of nest box replacement is $2,838,515.77**

| YEAR | PRICE OF NEST BOX | TOTAL COST OF 20 BOXES |
|---|---|---|
| year 1 | 100 | 2000 |
| year 10 | 120 | 2400 |
| year 20 | 144 | 2880 |
| year 30 | 172.8 | 3456 |
| year 40 | 207.36 | 4147.2 |
| year 50 | 248.832 | 4976.64 |
| year 60 | 298.5984 | 5971.968 |
| year 70 | 358.31808 | 7166.3616 |
| year 80 | 429.981696 | 8599.63392 |
| year 90 | 515.9780352 | 10319.5607 |
| year 100 | 619.1736422 | 12383.47284 |
| year 110 | 743.0083707 | 14860.16741 |
| year 120 | 891.6100448 | 17832.2009 |
| year 130 | 1069.932054 | 21398.64108 |
| year 140 | 1283.918465 | 25678.36929 |
| year 150 | 1540.702157 | 30814.04315 |
| year 160 | 1848.842589 | 36976.85178 |
| year 170 | 2218.611107 | 44372.22213 |
| year 180 | 2662.333328 | 53246.66656 |
| year 190 | 3194.799994 | 63895.99987 |
| year 200 | 3833.759992 | 76675.19985 |
| year 210 | 4600.511991 | 92010.23982 |
| year 220 | 5520.614389 | 110412.2878 |
| year 230 | 6624.737267 | 132494.7453 |
| year 240 | 7949.68472 | 158993.6944 |
| year 250 | 9539.621664 | 190792.4333 |
| year 260 | 11447.546 | 228950.9199 |
| year 270 | 13737.0552 | 274741.1039 |
| year 280 | 16484.46624 | 329689.3247 |
| year 290 | 19781.35948 | 395627.1897 |
| year 300 | 23737.63138 | 474752.6276 |
| TOTAL COST | | $2838515.766 |

1 *attrition rates would have to be taken into account here we recommend that 10 trees be planted to compensate for the loss of one tree.*

*By Fiona Watts*

Certified Environmental Management

# Belgravia

Belgravia is located near Orange, at the top of the Bell River sub-catchment (Orange to Wellington). It comprises three properties totaling 1832 hectares of mixed farming. Ensuring the ongoing productivity of our lands is something Belgravia is committed to. Belgravia is tackling seven of the major issues faced by farming today – Business Planning, Soils, Water, Weeds Pests and Diseases, Biodiversity and Natural Resources, Wastes, and Greenhouse Gas emissions and has set them out in a systematic program (EMS) that allows Belgravia to assess and plan improvements to their operations.

The EMS encompasses an integrated whole farm approach including:

- ✓ Production of Premium Grade Wine Grapes
- ✓ Ultra-fine Merino Wool Stud and Fat Lamb Production
- ✓ EU Certified Beef Breeding
- ✓ Bed and Breakfast Cottage Accommodation
- ✓ Restoration of the Endangered Ecological Community; the Grassy White Box Woodlands
- ✓ to create balance between commercial operations and the need for a healthy functioning ecosystem.

Over the past 10 years, over 120,000 trees have been planted to provide flora and fauna links across the farm that adjoin neighboring tree lots and the Calula Hills bush land areas that butt the property. The business aim is to restore 20% of the properties to a high biodiversity value.

Part of achieving this outcome means Belgravia must consider how its entire business functions. To make on ground works such as tree plantings, grazing regimes, fencing programs and riparian works effective, knowledge must be obtained. We must consider how the properties link into the works carried out beyond the farm gate, starting with neighbours, then the Bell River sub-Catchment followed by the Central West Catchment. With limited funds, decisions must be made regarding where conservation sites will be placed, how they will be prepared and what tree species will be planted. To do this effectively Belgravia must first understand the needs of the fauna species they are working to support. The first step was to acquire the services of fauna specialists – Ray Madjwesch and Cilla Kinross who carried out an extensive fauna survey across the properties of Belgravia in April 2003. Ray compiled an extensive report outlining fauna species he recorded on site and those species that based on the flora and habitat available should be on site.

Photo: Stefan Eberhard

Photo: Stuart Cohen

This list is extensive and includes:

- 1 endangered ecological community present - Grassy White Box Woodland
- 2 vulnerable Species present - Superb Parrot & Common Bentwing Bat
- 7 endangered species expected on site
- 33 vulnerable species expected on site.

We then commenced work with the University of Sydney who had a visiting Scholar conduct monitoring and design fact sheets for the Superb Parrot and Diamond Firetails. Following this a PhD student based through Sydney University (Ronald Bonifacio) is now incorporating Belgravia in his current studies of 'Botanical diversity of shelterbelts and its potential contribution to vertebrate and conservation and pest management'. 'Boni' has found a large selection of species throughout the tree plantings and will be cataloging them throughout his 3-year study. On a recent survey (30th October 2004) he found bat activity in all of our shelterbelts that he surveyed with the greatest number and diversity in the area with remnant vegetation supported by plantings of up to 10 years old. During summer this year he will be conducting a more extensive analysis.





Belgravia is seeking to form partnerships with appropriate community groups to carry out monitoring activities on the site. It is expected to provide benefit to everyone involved because valuable information is obtained while community groups gain access to an excellent site for educational and interest pursuits. Because of Belgravia's focus on the environment, the group is able to deal with a business that has a genuine interest in improving their habitat and biodiversity. A group can be involved in a major program and see a real benefit of their actions. Ideally we are looking for partners with a genuine interest in flora and fauna and the environment to provide ongoing monitoring of species.

The data collected would be added to the Belgravia EMS system and interesting findings discussed as part of the ongoing newsletters and web site.

Belgravia's environmental manager has numerous project ideas for school or university students. For more information contact Fiona Watts. (02) 6366 8706 **fiona.watts@belgravia.com.au**(,who would be pleased to discuss Belgravia's works and potential partnerships with you further. Or visit our Belgravia's website at **www.belgravia.com.au**

THE SWIFT PARROT & REGENT HONEYEATER RECOVERY TEAMS

*present*

# Threatened Woodland Bird Workshops 2005

**Saturday 7th May — Gosford, Central Coast NSW**
**Saturday 23rd July — Gundagai, South West Slopes NSW**
**10am-5pm**

Interested in woodland birds and their habitats? Then come along to a free one day workshop at either Gosford or Gundagai to find out how to identify threatened woodland bird species and the habitats they use in your l ocal area.

The workshop will include:

- An illustrated talk by woodland bird researchers, including threatened species recovery team members
- Information about the latest survey and research information from your local area
- Ident ification of threatened woodland birds and their habitats, including Regent Honeyeaters and Swift Parrots
- Information on how to get involved in conservation programs for threatened woodland bird species and their habitats, including the National Swift Parrot and Regent Honeyeater Surveys held twice a year (May and August).

There will also be plenty of opportunity to share your observations and thoughts on woodland birds with researchers and other locals.

We will have a short field trip in the afternoon searching for some of the threatened species discussed during the day. A light lunch & morning/afternoon tea will be provided, so all you need to bring is pen, paper, binoculars and enthusiasm!

For more information contact:

Debbie Saunders (Swift Parrot Recovery Team)1800 66 57 66 or
EMAIL: debbie.saunders@environment.nsw.gov.au

David Geering (Regent Honeyeater R/Team) 1800 621 056 or
EMAIL: david.geering@environment.nsw.gov.au

*By Pauline Constantin*

# Getting the balance right is a world wide phenomenon!

## A letter from France!

I am a 20 year old french student in an internship with the Department of Environment and Conservation Southern directorate for 4 months. In France we don't have so much space as in Australia, so our natural resources are in smaller areas and are easier to protect. That's why in France the environment problems are not focused on protecting and managing area but we accord more interest in pollution created by human activities, like industrial activities, car pollution, water pollution, growing urban areas and agricultural activities.

France is 56 times smaller than Australia for 60 million inhabitants. Cities get bigger and bigger which reduces natural spaces and wild animal habitat (for birds, foxes, rabbits etc), while increasing pollution. Some sites in France have no native inhabitants, which is a problem because no one is responsible for the landscapes management.

Today the agriculture and environment minister is focused on agriculture and how we can produce food without polluting the environment. We realise at the moment that some farmers use very bad environmental products to help their plantations to grow. These products can settle on or in the soil and are washed directly into the rivers when it rains or into the water table. Animal effluent is also a problem.

We search how to manage agriculture that impacts on our environment. We know agriculture is necessary to produce the food to feed the population, we can't grow less and farmers play a key role in landscape management. Being a farmer in France is not easy, hard work, no free time and not well paid for the work they offer. Often if they change their system and try to be more careful of the environment their income reduces.

Our government and the agriculture minister agreed to give some money to the farmers who take care of the environment by practicing "sustainable agriculture". The money can compensate for the decline in production and also for the costs associated with the management changes. The farmer signs a kind of contract in which it is said what must be done. During the year the farmer must record all that he does and if it is done well and improves the environment then he receives the money. Of course the government can't control every farmer, so they believe them, and sometimes choose some farms to check if the agreement has been respected.

This great idea is more and more adopted by the farmers who can afford to, with most of them realising the potential benefits for their environment and try to do their best.

Behind this the government continues to develop education programs to make everybody aware of the environmental problems. Some progress has been made but so much still has to be done. I don't know really how it works in Australia, but I hope my article gives you an idea of the French approach to balancing agriculture and the environment.





*Toni McLeish*

# Shared Learning

What better place to learn about the individual species that make up a grassy box woodland community, than standing in a fine example of this rare community. Wagga Wagga RLPB shared the jewels in their crown Kyeamba and Mates Gully TSR's. Displaying their glory to all who attended with a spring display of annual plants accompanied by a rousing chorus of woodland birds.

Topics covered on the day were:-

- Grassy Box Woodlands "the Network and the Community",
- "Plant community Structure and Identification",
- "Woodland Birds Habitat and Species identification"
- Management of Travelling Stock Reserves with Mark Luff, Wagga Wagga Rural Lands Protection Board.

Whilst walking and talking to Damon Oliver (DEC) about the importance of keeping all hollows and fallen timber for fauna habitat, we came across a perfect example, the nest of a Grey Shrike-thrush.

**If you can arrange a group of 20 or more and would like to participate in a similar field day in your area phone Toni on 62989709!**

# The Useful Kurrajong

*By Nell Chaffey*

| Plant part | Use |
|---|---|
| Seed | food |
| Roots | food |
| Exudate(brownish substance which weeps from the trunk and branches) | food |
| Bark | Fibre to weave for nets bags and body decorations |
| Trunk and branches | • a source of water<br>• a vantage point |
| Leaves | • shade<br>• a hiding place |

The kurrajong was often one of the few woodland trees left standing in cultivation paddocks when land was cleared for farming purposes. This was because the leaves are useful, high quality fodder for stock during times of drought. Also, as the tree relies on a single deep root, it does not compete as much as many other woodland tree species, with the shallow rooted cereal crops, that replaced the deep rooted native grasses and understorey plants. It was the seeds from these plants, which Aboriginal people harvested, ground, and made into cakes/bread. And of course, by just being there it does all the useful things plants do for our environment, plus being endemic (native to the white box woodlands), it adds habitat value for many other creatures. Ants for one just love them!

*References*

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# Inside this Issue



## Watch this Space!

Constraints to community groups monitoring plants and animals as found by A Freeman in a far north Queensland study.

Lack of time.
Too physically demanding.
Continuity of membership.
Not enough money.
Relevance of findings (data)?
Who uses the findings?
Not necessary.
Not required.
More paperwork.
Benefits aren't obvious.
Lack of skills and knowledge.
No self confidence in own capabilities.
Not qualified to hold permits.

Sound familiar? Join us at our Autumn forum to dismantle this wall of inaction!!

*Woodland Wanderings* (Grassy Box Woodland CMN) newsletter was edited by Toni McLeish and Lorraine Oliver of DEC and was produced with funding from the Federal Government's NHT2.



## Useful resources

**Williams C. 2004 Old Land**, New Landscapes, Melbourne University Publishing, Carlton VIC - A story of farmers, conservation and the Landcare Movement.

## Useful Websites

**Bird reference sites**
www.birdsaustralia.com.au/remnants/index.html

**Acacia sites**
www.worldwidewattle.com/infogallery/identification/

**Flora of South Australia**
www.flora.sa.gov.au/id_tool/acacia.html

**Charles Sturt University Farrer Centre**
http://farrer.riv.csu.edu.au/ASGAP/acacia.html

**Australian National Botanic Gardens**
www.anbg.gov.au/emblems/aust.emblem.html
www.anbg.gov.au/greening-grainbelt/index.html
www.anbg.gov.au/acacia/ http://www.anbg.gov.au/acacia/

**The Value of a Mature Dead Tree**
www.hollowloghomes.com.au

## CMN web page

To be launched in the Autumn 2005 edition of Woodland Wanderings.

## Join our Grassy Box Woodland email chat group

**Email** Toni to register or pose any question!
toni.mcleish@environment.nsw.gov.au

## Article deadlines for Woodland Wanderings

**Autumn edition deadline** —1st April 2005
**Spring edition deadline** —1st September 2005

## Making Contact

Expressions of interest are invited from all persons or groups wishing to be involved by writing to:
Grassy Box Woodland CMN
C/o Toni McLeish NSW DEC
PO Box 2215 Queanbeyan NSW 2620
**Phone:** (02) 6298 9709
**Email:** toni.mcleish@environment.nsw.gov.au

## Box-Gum woodland fact sheet

A fact sheet about the endangered ecological community White Box, Yellow Box, Blakely's Red Gum Woodland (or Box-Gum Woodland) is available on www.npws.nsw.gov.au/wildlife/thr_profiles/ Box-gum_Factsheet.pdf, or call Toni McLeish DEC on (02) 6298 9709.