



Please find your *survey* enclosed.
Fabulous prizes
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date *9th August*



Above: One of the Feathertail Gliders in Barry's letterbox. Photo by Todd Burrows.

Right: A cute and tiny Feathertail Glider rescued by a wildlife carer from a cat. Photo by Flickr - RSPCA WOAW (World of Animal Welfare).

The world's smallest gliding mammal

It was about four years ago on a cold and wet week night when I stopped at the front gate to check the mail. My mail box is a home made timber arrangement bolted to the fence, deep enough to take newspapers and the like without the lid being propped open. I noticed a handful of dry leaves in the bottom and remember wondering how leaves could have blown through the letter slot.

The next morning as I was leaving for work I had a closer look and discovered two tiny balls of fur amongst the leaves, each about the size of a golf ball. Every night I checked to see if they had moved, but the only change was the amount of leaf litter, which had increased. Both were virtually motionless which I interpreted as being unwell or dead.

I decided that if they were still there on the following Saturday I would take them to the vet. So on the Saturday morning as I took them out of the letterbox it was clear from the webbing between the elbow and the knee that they were some sort of glider. I wrapped them in a pillow case and took them off to the vet at North Tamborine.



When I showed the vet and asked if he thought they were OK he just looked at me and said "They're not sick, they're nocturnal, they're asleep". Needless to say I left feeling a right goose and I could feel the eyes of everyone in the surgery staring as I left.

I returned the pair to the letterbox and decided to protect them with some plastic garden trellis to ensure that they didn't get taken out by the Telstra bill or the local paper. They can still move up through the trellis, but the letters can't land on them.

To this day they still use the letterbox, usually when it is wet or very cold. They must use a different nest in fine weather.

It wasn't until Todd Burrows from Land for Wildlife came to do an assessment on my property that he informed me that they were Feathertail Gliders and that I should feel honoured to have such animals adopt my letterbox as home. I do. They are in fact the world's smallest gliding mammal.

And, yes I have informed my postie.

Article by Barry Mottrom
Land for Wildlife member
Wongawallan, Gold Coast

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Inside this edition you will find a survey that I encourage you to complete, preferably online, or using the enclosed form. This is an opportunity for all members to have your say and tell us a bit about the conservation activities you are doing on your Land for Wildlife property and how the program may be able to better support you. The SEQ Land for Wildlife program aims to survey our membership every five years, but we are running a bit behind schedule given our last survey was in 2005, so we welcome your input.

This survey differs from past ones in that we are exploring links between the Land for Wildlife program and the well-being of our members as well as the motivators for undertaking conservation works.

Every newsletter edition contains profiles of Land for Wildlife properties and the people who care for, manage and aim to improve them. I get a sense from reading such profiles that as people see their properties improve and wildlife return, the well-being of the landowners also improves. I know that I always feel better when I spend time in wild places or even just watching silvereyes in my backyard. And my sense of enjoyment further increases if it is habitat that I have helped restore.

This edition showcases some activities undertaken by Land for Wildlife members

ranging from monitoring, watching and enjoying wildlife to controlling weeds and foxes. All activities that potentially contribute to human well-being. The story on page 12 about the Creative Recovery Project in the Lockyer is a spark of goodwill set among the backdrop of recent flood tragedies and reaffirms the importance of community.

I love the story about Sooty Owls, a top predator I have only seen a couple of times. It would be great if similar research of sub-fossil deposits underneath Sooty Owl roosts was done in SEQ. Any aspiring researchers or universities out there?

Finally, I would like to say farewell to Ed Surman who has replaced his Land for Wildlife boots with motorcycle ones to travel the world. Ed has been an invaluable Land for Wildlife Officer in the Moreton Bay and Sunshine Coast regions since 2009 and his enthusiasm and ecological skills will be missed by colleagues and landholders alike.

Thank you to everyone who contributed to this edition. Feel free to share your story about your Land for Wildlife property anytime. Happy reading!



Deborah Metters
Land for Wildlife
Regional Coordinator
SEQ Catchments

Landholder Registrations, Land for Wildlife SEQ - 1/6/2013

Registered Properties	Working Towards Registration	Total Area Retained	Total Area under Restoration
3015	740	54,790 ha	4,746 ha

Forward all Letters to the Editor, Fauna Vignettes and My Little Corner contributions to:

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Land for Wildlife South East Queensland is a quarterly publication distributed free of charge to members of the Land for Wildlife program in South East Queensland.

Print run - 4895

Back copies from 2007 - 2013

available for download from
www.seqcatchments.com.au/LFW.html

Back copies from 1998 - 2006

available upon request to the Editor.

ISSN 1835-3851

Land for Wildlife is a voluntary program that encourages and assists landholders to provide habitat for wildlife on their properties.



www.seqcatchments.com.au/LFW.html

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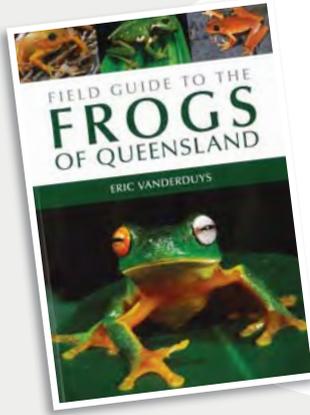
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**Gympie, Fraser Coast,
North & South Burnett,
Bundaberg and
Baffle Creek Regions**

For all regions contact the Burnett Mary
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fauna vignettes



FREE BOOKS

SEQ Catchments is giving away free copies of *Field Guide to the Frogs of Queensland* (released November 2012) RRP \$45 to selected Land for Wildlife members who contribute published articles in 2013. Limit of three free books per newsletter edition. Please send your article and/or photographs to the Editor (details pg. 2)

The intriguing world of bugs



Lynne and Terry Hamill found this striking bug attacking some mature White Cedar trees on their property at Veresdale in Logan. It's a Green and Black Planthopper (*Desudaba psittacus*) that can 'hop' a distance of up to 2 metres when disturbed.

This species is a comparatively large hopper (about 15 mm long) that has a green abdomen with white spots and red patches visible when the wings are open. Planthoppers feed on trees and woody shrubs and will generally not cause too much damage to a

plant, however with large numbers damage can occur like what Terry has experienced on his White Cedars.

If you are trying to identify an insect these web pages may help:

Brisbane Insects and Spiders
www.brisbaneinsects.com

CSIRO's What Bug Is That?
<http://anic.ento.csiro.au/insectfamilies/>

Rachel Booth
Land for Wildlife Officer
Logan City Council

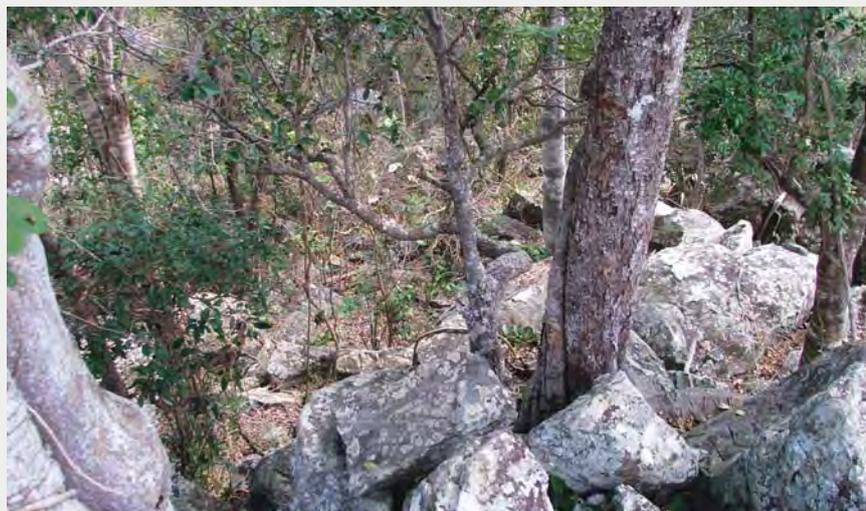
Secretive rock wallabies

Just received your newsletter that had the story about the Brush-tailed Rock Wallabies [Oct 2012]. I was delighted to see this as we are property owners west of Gympie in the Great Dividing Ranges with Mount Boogooramunya as our highest peak. The property was settled by the Lohse's in 1916 and did, and still, boasts many small colonies of wallabies throughout our range country.

Our property, Springvale, is 3804 hectares of forest country. It has many rocky outcrops, cliff faces and Morten Bay Fig trees throughout the scrub and rainforest areas. These are areas where the wallabies thrive. Each colony varies slightly in appearance and size. They appear unique to their group - this may be because of their isolation from each separate colony. They do not venture far from their home ground. Only in severe drought have we seen them stray from their areas.

I have included a photo of the habitat areas and one with a wallaby in it. They are very hard to photograph due to their sensitivity.

Sharon Lohse
Land for Wildlife member
Springvale, Gigoomgan
Burnett-Mary Region





fauna profile

Goodness gracious great balls of fur!

How Sooty Owls can provide an insight into the small mammals of a forest - past and present

There are few nocturnal calls quite as eerie as the screeching call of a Sooty Owl (*Tyto tenebricosa*) as it glides low over the forest canopy. Sooty Owls are among the top order predators in the forests of south-east Queensland.

I am fortunate to regularly hear and occasional see Sooty Owls on my own property in the Sunshine Coast hinterland. The regular presence of this species and the occasional presence of another top-order predator, the Powerful Owl, has provided me with much food for thought, particularly how the forest can continue to sustain the insatiable appetites of these hungry carnivores. These and other questions prompted me to delve into what research has been undertaken on the diet of these intriguing creatures of the night.

The presence of Sooty Owls is often an indicator of mature forest with an abundance of hollows, indeed nearly three-quarters of their prey species are considered to be hollow dependant. Such top-order carnivores contribute to the stability of forest ecosystems and can tell us a lot about the inhabitants of an area, including how they may have changed over time.

Despite being a habitat specialist the Sooty Owl is somewhat of a generalist predator, preying on both arboreal and terrestrial mammals, from antechinus to ringtail possums. Studying the diet of a Sooty Owl can therefore reveal a lot about the diversity of small mammals in a patch of forest.

Like most large forest owls, Sooty Owls ingest the fur and bones of their prey, which can include beasts as fluffy as the

Greater Glider. While the bulk of the victim is digested, it's not surprising that a lot is regurgitated in a rather large fur ball usually referred to as an 'owl pellet'. These pellets are usually found at the base of nesting hollows or roost sites and in addition to the fur they also contain bone fragments and even intact skulls. It is these skulls, bones and hairs that can then be used to identify what mammal species have been preyed upon by the owl.

As part of his PhD research, Dr Rohan Bilney from Deakin University took this method of forensic zoology to another level. As well as roosting in large tree hollows some Sooty Owls roost in caves or on rock ledges, and in such sheltered sites, regurgitated prey remains can accumulate over many, many years. By examining sub-fossil deposits of prey remains at roosts in Gippsland, Victoria he was able to obtain a historical record of Sooty Owl diets dating back to well before the arrival of Europeans in Australia. The results provided an amazing insight into how the diversity of small mammals has changed over the last 200-odd years.

The samples identified from the sub-fossil deposits revealed that twenty-eight species of small mammals had been consumed by Sooty Owls in the research area over the last 5,000 years. Interestingly of those twenty-eight species, one is now extinct, three are extinct on mainland Australia, four are considered extinct in the wider Gippsland region, six are considered locally extinct, and a further four have suffered significant population declines and are now considered to be rare in the area. Carbon dating of the bones showed that all of the twenty-eight small mammal species recorded were still present in the owls' diet up until the last couple of hundred years.

This female Sooty Owl was found roosting in an overhanging cave on a Land for Wildlife property at Christmas Creek, Scenic Rim. She flew silently to a nearby tree to wait patiently for the humans intruders to leave. Photo by Deborah Metters.

By contrast, when the fresh pellets of Sooty Owls were also examined, it revealed that only ten species of the original twenty-eight small mammals were found in the present day diet of Sooty Owls. The research has demonstrated an alarming loss of predominately ground-dwelling small mammals in the study area since pre-European times.

The research showed that ground-dwelling mammals originally formed the bulk of the Sooty Owls' diet. Of the fifteen ground-dwelling prey species originally present only one now forms a regular part of the owls' diet. As a result of this loss of available prey species the Sooty Owl has been forced to significantly change its diet over the last two centuries.

The loss of small mammals in Australia since European settlement has been well documented and it is widely recognised that predation by introduced predators, including the European Fox (*Vulpes vulpes*) has been a major contributing factor to this decline. The Sooty Owl is a generalist predator, it has been shown to prey upon the majority of small arboreal and terrestrial species (<1.5 kg) present in their preferred habitat. The Deakin University researchers are hopeful that diet can be used a means for monitoring any changes in small terrestrial mammal populations in response to fox control programs and assist in evaluating their relative success.

Today, Sooty Owls feed more on arboreal mammals that are not as vulnerable to predation by introduced predators and remain relatively common. Tree dwelling species are also the major component of the diet of Powerful Owls, a species whose distribution overlaps with the entire



The spectacular wings of the Sooty Owl enable them to manoeuvre skilfully and silently through dense forests. Photo by Richard Jackson - visit www.owlpages.com for more of Richard's images.

distribution of Sooty Owls. Both species often co-exist in the same habitat type.

This change in prey by Sooty Owls is likely to have increased the dietary overlap and competition between these two top order predators. This is especially true for the larger female Sooty Owls that generally consume larger prey such as Greater Gliders and Common Ringtail Possums. Dr Bilney's research showed that seventy

percent of the Powerful Owl's and Sooty Owl's contemporary diets constituted the same prey species. In the contemporary landscape this competition for resources is unlikely to be without impact and could potentially result in reduced reproduction success in addition to the increased predatory pressure on arboreal mammals.

... article continued overleaf

Sooty Owls can roost in caves, ledges and overhangs, like this one at Christmas Creek. The ledges and ground below Sooty Owl roosts are littered with regurgitated owl pellets, bones, fur and faeces.

Sooty Owl (*Tyto tenebricosa*)

Description - A medium-sized dark (length 38-50 cm) sooty-black owl with large eyes set in a prominent flat, oval grey facial disc, fine white spotting above and below, and a pale belly. The feet are large and powerful. The female (750-1260 g) is significantly larger than the male (450-700 g).

Range - The Sooty Owl occurs on the eastern side of the Great Dividing Range, north from the Dandenong Ranges in Victoria to the Conondale Range in the Sunshine Coast Hinterland. Home range per pair has been estimated as 200-800 ha (dependant on habitat productivity).

Habitat - Sooty Owls are strongly associated with moist sheltered gullies within a mosaic of mature tall- wet eucalypt forests and rainforest. The forest is usually structurally complex and contains a dense mid-storey of trees and shrubs. They require a high density and diversity of small forest mammals, many of which are hollow-dependent or require old-growth forest attributes.

Roost and Nest Sites - They roost and nest in the hollows of live smooth-barked (eg *Eucalyptus grandis*) or occasionally dead trees, in moist forest. They can also roost during the day and nest among dense foliage in rainforest gullies, caves, recesses or ledges in cliffs or banks, usually in the darkest and most sheltered positions in the forest. Hollows utilised are high up in old trees (at least 150-200 years old) and are large (at least 40 cm wide and greater than one metre deep) and surrounded by canopy trees. They will also nests in caves. Pairs are often faithful to a traditional nesting site. Non-breeding individuals use a range of roost sites.

Breeding - The Sooty Owl lives as monogamous, sedentary, life-long pairs in large permanent home ranges. The social unit is an adult pair and 1-2 dependent young. Laying is irregular and unpredictable, occurring in most months with peaks in autumn-winter and early spring. The clutch is 1-2 eggs; a single clutch is laid per year but sometimes there is no breeding within a year. The breeding cycle occupies up to 4 months

from laying to fledging. The male provides food, while the female provides parental care during the egg and chick stages. Both sexes provide food from the late nestling stage to independence of the young. Juveniles are dependent for 3-5 months post-fledging; thereafter dispersal is unknown.

Diet - The Sooty Owl is a generalist predator of just about any arboreal and small terrestrial mammal occurring within its habitat. It particularly favours the Common Ringtail Possum, but it also takes large numbers of the Sugar Glider, Greater Gliders, Bush Rats, Fawn-footed Melomys and the Brown Antechinus. Bandicoots are also commonly taken. Birds and insects are rarely eaten by the Sooty Owl.

Behaviour - The Sooty Owl hunts by night from perches within the forest canopy or sub-canopy. During the day it roosts in a large tree hollow or among the dense foliage of sub-canopy rainforest trees in gullies. In some territories, the owls commonly roost in caves, cliff ledges or crevices, rock or bank overhangs.



Listening out for the distinctive 'falling bomb' call of the Sooty Owl is the easiest way to determine if this unique bird of prey frequents your property. If you are fortunate enough to have Sooty Owls hunting in your forest then it would definitely be worth talking to your Land for Wildlife Officer about instigating a fox control program. The retention of both living and dead hollow bearing trees is also critical to the long term survival of this amazing creature and the prey that sustains it.

May the eerie calls of the Sooty echo through the forests of South-eastern Australia for many centuries to come.

References and Further Reading

Bilney RJ. Sooty Owl Secrets. *Wingspan* 19 (3) September 2009. Birds Australia

Bilney RJ, Cooke R & White JG (2010) Change in the diet of sooty owls (*Tyto tenebricosa*) since European settlement: from terrestrial to arboreal prey and increased overlap with powerful owls. *Biological Conservation* 143 (1) 52-59.

Holmes G (1994) Prey of the sooty owl in subtropical Australia. *Sunbird* 24, 25-27.

Kavanagh RP (2002) Comparative diets of the powerful owl (*Ninox strenua*), sooty owl (*Tyto tenebricosa*) and masked owl (*Tyto novaehollandiae*) in southeastern Australia. In: *Ecology and Conservation of Owls*. Eds. I Newton, R Kavanagh, J Olsen and I Taylor. pp. 175-191. CSIRO Publishing.

Strahan R (1995) *The Mammals of Australia*. Reed Books.

Department of Environment and Conservation NSW (2006) *Recovery Plan for the Large Forest Owls: Powerful Owl (Ninox strenua), Sooty Owl (Tyto tenebricosa) and Masked Owl (Tyto novaehollandiae)*. DEC, Sydney.



**Article by Nick Clancy
Land for Wildlife Officer
Sunshine Coast Council**



Photos clockwise from top:
The ground beneath owl roost sites is littered with owl pellets, bones, fur and faeces.
Sooty Owl pellets containing indigestible fur and bones of their prey.
Northern Brown Bandicoot skulls found beneath a Sooty Owl roost.
Brush-tailed Phascogale lower jaw and skull with the skull of the Sugar Glider (far right).
Long-nosed Bandicoot skulls found beneath the same Sooty Owl roost.



pest profile

Managing Foxes

The European Red Fox was originally introduced to Australia in the 1850s for recreational hunting. It is now found across mainland Australia in both rural and urban areas. Foxes are clever and opportunistic hunters and have contributed to the decline and extinction of many small ground-dwelling native mammals. Photo by Deborah Metters.

On my 29 hectare Conservation property at Burbank, I regularly see foxes.

A couple of years ago I happened to see five foxes in a pack running past my house. I had also seen a den, and not far from the den beside a big old dead log, were remnant wildlife and bird carcasses including wallabies and kookaburras. Consequently I called the Brisbane City Council Pest Division where the officers set up traps with only one fox being caught.

I thought it would be so easy just to shoot these foxes since they always seemed to be about. Due to the size of my property I am able to permit shooting, so I contacted Conservation and Wildlife Management (CWM), which is a division of the not-for-profit Sporting Shooters Association of Australia Qld Inc., to ask if they could help.

The Co-ordinator of the CWM Queensland Division came to assess my property and my application was approved by the CWM and subsequently the process began.

I personally notified my neighbours of my intention and advised relevant Government Departments. The volunteers set up cameras with the intention to establish where and when the foxes were moving. We left each camera up for a few weeks and if no action captured we moved the cameras to another location where foxes had been seen. Volunteers from the CWM checked the cameras a couple of times a week. Finally after five months of monitoring we had some regular fox action. Since the location was not far from my property boundary, it was decided it would be wise to set up a cage trap. We caught one adult male fox

which was euthanised by a CWM volunteer.

Since we had seen another young fox on camera, I bought my own cage trap and will continue to trap on a regular basis, knowing that when I do catch a fox I have an experienced volunteer to help me out.

Feral pest eradication is an important component to biodiversity conservation management, so for me, the knowledge and assistance provided by the Sporting Shooters Association of Australia CWM was invaluable.

**Article by Sally Jenyns
(former) Land for Wildlife member
Burbank, Brisbane**



Foxes have been so successful in Australia because they have few predators and they can eat a wide variety of food including mammals, birds, reptiles, frogs, insects and fruit. Photos captured on motion-sensor infra-red cameras from Land for Wildlife properties in Upper Brookfield.



22°C 02/22/13 04:35 AM 0000000

31.59 inHg ↓ 20°C 01/04/13 12:32 AM 0000000

fauna profile



Damsels and Dragons: A brief guide to the damselflies and dragonflies of SEQ

Dragonfly *Rhyothemis phyllis* – Yellow-striped Flutterwing. Common and widespread on lowland still waters of large dams, lagoons etc. in SEQ. Avoids flowing creeks.

While I don't claim to be an expert on damselflies and dragonflies, I've long admired and been fascinated by them as insects, due to their incredible aerobic agility, jewel-like colours, and intriguing life-cycles. However it wasn't until I first went on a damselfly/dragonfly hunting-outing to Sandgate Lagoon years ago with the late Odonata expert Ric Natrass that I began to find out how captivating they really are. I am deeply indebted to my good friend and naturalist extraordinaire, Ric, who further aroused my interest in damselflies and dragonflies (order Odonata) in the summer of 2004-2005.

In the egg and larval (nymph) stage, most Odonates (species in the Odonata order) have an existence submerged in shallow freshwater. The larvae lay in ambush amongst aquatic plant stems and submerged foliage, preying on other aquatic fauna, sometimes larger than themselves. Some Odonates remain in the underwater larval stage for up to four years. An Odonate in its adult stage may only live for one to three months.

Larvae eventually emerge from the water to metamorphose nearby into the adult stage. The newly emergent, thin cylindrical adult (teneral) is usually dull and almost colourless and remains close to where it emerged until its wings extend and dry. It usually migrates a short distance away from the water body, inhabiting this region until it reaches sexual maturity. On maturity riverine-dwelling Odonates move back to the site where they emerged to set up a territory, which they subsequently fiercely defend.

Dragonflies and damselflies are quite adept and fearsome predators, even on the wing, catching other prey insects by forming a 'basket' with their spiny front and middle legs. (I once saw a dragonfly clutching an introduced (stinging) European Honey Bee. Odonates are excellent fliers and can hover

or even fly backwards as well as forwards. Their huge bulbous eyes, (which can have up to 30,000 facets), provide them with excellent wide-angle vision.

Dragonflies and damselflies have been around on Earth for about 300 million years. In prehistoric times some Odonates were massive and had wingspans of up to 70 cm. In current times the dragonfly with the widest wingspan in south east Queensland (SEQ) is the Southern Giant Darner (*Austrophlebia costalis*) with a wingspan of 140 mm. The Coastal Petaltail (*Petalura litorea*) has the longest body length of 110 mm.

According to Ric Natrass' publication, *Dragonflies of South East Queensland - A Field Guide* (2006) there were 28 damselfly species and 58 dragonfly species recorded from SEQ. However due to increased knowledge, interest and more intensive surveys in the region, largely engendered by Ric's field guide, numbers may now be slightly higher than in 2006.

The main observable differences between adult damselflies and dragonflies are that both membranous hindwings and forewings of the damselfly are very similar in shape, whereas dragonfly hindwings and forewings are unequal in shape. Dragonfly hindwings are much broader at their bases than their forewings are. Another distinguishing characteristic of dragonflies is that their large bulbous eyes are close together whereas similar eyes of damselflies are widely separated.

It is a common belief that damselflies are all smaller than dragonflies. However this is untrue. Rockmaster damselflies (*Diphlebia* spp.), at body-length 50 mm, are more than twice the size of the smallest dragonfly in SEQ, the Australian Pygmyfly (*Nannophya australis*) at 20 mm.

Another misnomer is that all damselflies at rest fold their wings back along their

bodies and dragonflies do not. However there are a number of damselflies that hold their wings horizontal like most dragonflies do. To confuse the issue further, one true dragonfly, the Common Shutwing (*Cordulephya pygmaea*) rests with its clear wings closed like a damselfly.

Damaged wings, torn or with pieces missing, can often be observed on some Odonates when they settle on rocks or leaf-stems or branches. This damage results from clashes with other Odonates and from escaping bird or other predator attacks.

Contrary to common belief, not all adult Odonates always inhabit water bodies. Two dragonflies, the Australian Emperor (*Hemianax papuensis*) and the Wandering Glider (*Pantala flavescens*), can often be seen patrolling paved areas of urban streets and shopping centres well away from water. Good numbers of the Graphic Flutterwing (*Rhyothemis graphiptera*) can often be seen patrolling high above the ground in spaces and open corridors between tree canopies.

In addition damselflies and dragonflies have varying degrees of preference regarding different water body types and wetland habitats. While some species prefer still ponds, swamps, or sluggish backwaters, other species prefer fast-flowing, clear mountain streams.

Odonates are diurnal and sometimes perch to consume their prey which consists of small insects in flight. They often have a favourite perching site. We humans can thank dragonflies and damselflies for making our life a little more comfortable as, in both larval and adult stages, they consume large numbers of mosquitoes.

My favourite group are the rockmaster damselflies (*Diphlebia* spp.), three species of which occur in SEQ. Unlike other damselfly species, rockmasters are robust in build and more dragonfly-like in their flight and



Damselfly *Diphlebia nymphoides* – Arrowhead Rockmaster male. Found in clear mountain streams such as at Canungra, Blackall Range, South Pine River headwaters and Teviot Brook.



Dragonfly *Orthetrum villosovittatum* – Fiery Skimmer male. Very common and widespread on creeks and ponds in SEQ.



Damselfly *Ischnura heterosticta*– Common Bluetail male. Widespread on most lowland rivers, creeks and still waters in SEQ.

can express boldness and aggressiveness in defending their territories. Whereas most other damselfly groups, as their collective name suggests, are relatively dainty and spend much of their time secreted amongst foliage beside their riparian habitats. The three vivid-blue-and-black rockmaster species, which occur in SEQ, favour clear mountain streams for their habitat. They are spectacular to watch as they dart colourfully to and fro amongst rocks and boulders in fast flowing streams. Their brilliant colours are eye-catching when they perch, often in full sunlight on water-bound rocks.

One way of increasing your knowledge of Odonates is to capture them with a soft butterfly net so that they can be identified. Mostly I prefer to take photographs of Odonates, rather than capturing them, as most species can be identified from a series of good, sharp photographs.

Damselflies and dragonflies can make stunning photographic subjects. While

photographing them can be challenging and frustrating, with patience and persistence it can also be very rewarding. The best time to photograph them is in late spring to early autumn when adults are most active. I use a digital SLR camera with an 18-200 mm macro-zoom lens. I often use fill-flash to stop movement of the subject and to compensate for camera shake, particularly if the ambient light is poor.

If you are using your camera on manual setting, it pays to use f16 or higher to provide good depth of field and to ensure that most of the subject is in focus, particularly the eyes. Also shutter speeds of greater than 160th of a second will be necessary to capture the subject sharply.

I find it really relaxing and soothing sitting in the shade by a babbling stream or at the edge of a lily-covered lagoon with binoculars, watching dragonflies and damselflies interact as they dart and swoop to and fro in the sunlight. I suggest you try it sometime! If you are fortunate enough to

have a property with a dam on it or a creek running through it, then you are most likely to have your own resident 'damsels and dragons' to observe and enjoy.

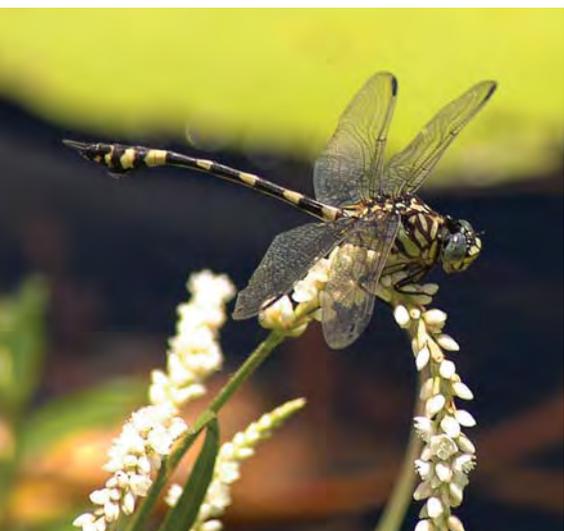
References and Further Reading

- Goode J (1985) *Insects of Australia*. Angus and Robertson.
- Nattrass R (2006) *Dragonflies of South East Queensland: A Field Guide*. Published by Ric Nattrass, Bellbird Park.
- Queensland Museum (2007) *Wildlife of Greater Brisbane*. A Queensland Museum Wild Guide.
- Theischinger G & Hawking J (2006) *The Complete Guide to Dragonflies of Australia*. CSIRO Publishing.
- Zborowski P & Storey R (2002) *A Field Guide to Insects of Australia*. Reed New Holland.



**Article and photographs by Paul Grimshaw
Land for Wildlife member
Mt Crosby, Brisbane**

Dragonfly *Ictinogomphus australis* – Australian Tiger male. Common on medium to large still and slow flowing water bodies in lowland parts of SEQ.

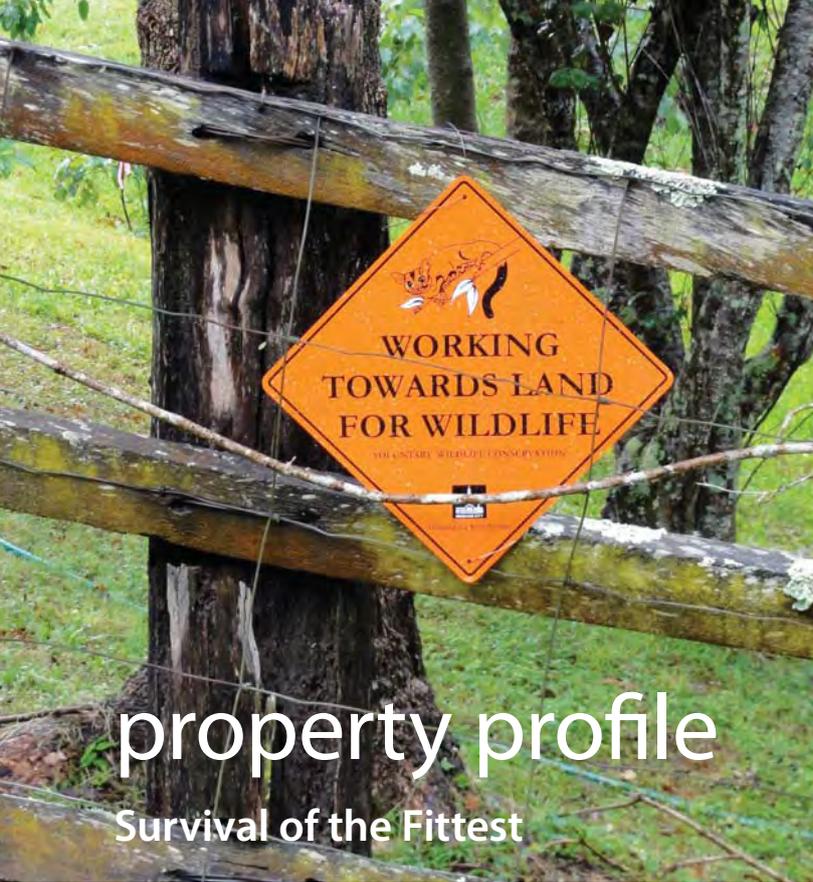


Dragonfly *Diplacodes trivialis* – Chalky Percher male. Common on larger water bodies with floating vegetation such as Nudgee Waterholes and Sandgate Lagoon.



Dragonfly *Rhyothemis graphiptera* – Graphic Flutterwing male and female virtually identical. Mostly still or slow-flowing waters, large dams and lagoons.





property profile

Survival of the Fittest



Our pair of resident curlews (top) and one of the curlews sitting on their eggs.

When we purchased our Upper Brookfield property twenty five years ago, it had been a farm and was cleared of trees and vegetation. We would stand on the verandah and look across the empty land to the hills opposite and listen to the distant birds. Ian had just started a new business and although the employees and projects needed our full time attention, we craved wildlife and vegetation, so slowly set about planting. In those early days through ignorance we made some mistakes with the choice of plants, plus the variety of native plants wasn't as varied or extensive as it is now. However the property is now transformed and wildlife is plentiful thanks to our efforts, and instead of listening to the far off birds calling, we are now surrounded by their songs and screeches day and night - just perfect!

The trees grew and birds followed; nesting, breeding, proliferating. Where once there was nothing, we now have numerous breeding avian species such as Lewin's Honeyeater, Figbird, Blue-faced Honeyeater, Green Catbird, Satin Bowerbird, White-faced Heron, Tawny Frogmouth and the usual bigger birds, as well as parrots large and small and migratory visitors and literally dozens of others.

The dam is home to Australian Wood Ducks and Dusky Moorhens that successfully nest, as well as ibis, a large turtle, eels, fish, yabbies and water dragons. Numerous butterflies, leaf and stick insects, native geckos, native bees and so on, all breed near the dam too. Unfortunately, it means that the Cane Toads also try and breed.

However, in the summer there is no better enemy than myself, armed with a torch and plastic bags. They are relatively easy to catch when the torch light is shone on them and I simply pick them up, pop them into the bag, fridge and freeze them. Easy-peasy!

In the trees we have Common Ringtail and Common Brushtail Possums living in nest boxes, though they also love the sheds too. In turn, the monitors and Carpet Pythons love them. There are Sugar Gliders, Feathertail Gliders, Eastern Water Dragons (maggills), skinks and other reptiles, tiny bats, antechinus and several varieties of frogs.

It was when our Land for Wildlife Officer, Catherine Madden (a powerhouse of action), offered us a nocturnal camera to try and identify a little critter (still unidentified) that we learned we had foxes traversing the property! We had often heard nocturnal disturbances of the ground dwelling birdlife, which included all our pet ducks being taken, as well as some wood ducks and moorhens and curlews. She helped us arrange fox traps and this year we have trapped four very healthy foxes, two of them females. We have purchased our own traps and are ready for any further unwelcome bushy tailed visitors. The neighbour's chooks are happier too.

For the past 15 years we have had a pair of breeding Bush Stone-curlews on the property. Their huge haunting eyes and mournful, sometimes frenetic, nocturnal wails and shrieks have made us feel somehow special that they have chosen

to live with us. They have raised several chicks over the years, although three years ago we believe a fox probably took two of the birds - a parent and an advanced adolescent - leaving the remaining parent and sibling. Last year a snake or monitor took their eggs.

Last September, during their breeding season, our pair of resident Bush Stone-curlews suddenly moved from the front of our house where they have always lived, nested and bred, to the rear. They took turns to sit on their two eggs whilst the partner stood guard nearby. We checked them daily from afar. At around the two week point we spotted a huge monitor lizard stalking their new territory. Each time it did, other birds like magpies, butcherbirds and Noisy Miners ganged up and harassed it to move it along. At this time too, the parents unexpectedly abandoned their eggs and moved back to their familiar spot at the front of the house. Concerned, I rang around for advice and was advised that they might return; however, a thirty hour period was about all the eggs could tolerate without a parent incubating them. So the next morning we checked early and found the eggs still unattended. Another ring around, and incubators were busy with snake eggs, so I called our friend Jill Valmadre to see if she had a clucky hen and struck gold! We took the eggs to her bantam and she settled straight onto them!

The incubation period for curlews is 30 days, however we weren't sure exactly of the date of lay, so daily Jill checked the little



Images clockwise from above:

A fox caught on the infra-red camera taking the chicken neck lure; a family of Tawny Frogmouths; Carpet Python; a native Robust Velvet Gecko; and, a 'magill' or Eastern Water Dragon on the back porch.

bantam, which was quite huffy and hissy at the unwanted hands checking her.

I had made a diary note for a possible hatching and incredibly, the first chick hatched the day after. Jill was able to take the chick (by now also named Jill) to a wildlife carer for its first meal and drink. The tiny thing was quite unsteady and flopping around, but its appetite was voracious and it hungrily gobbled up the insectivore diet mix (of dried insects and other necessary nutrients moistened with water).

The wildlife carer rang a few days later to say that 'Jill' had a neck deformity and could not stand without toppling over. Sadly, the little creature had to be euthanised.

Now we wonder if it was at that two week mark, when mum and dad abandoned their eggs, were they actually able to detect that the chick was not normal and the second egg was either unfertilised or the embryo dead? Nature is so much smarter and more intuitive than we ever give it credit. It also reinforces the meaning of survival of the fittest.

The small numbers of dedicated wildlife carers devote much of their time and money to selflessly providing and caring for our native wildlife. Perhaps next time you avail yourselves of their services, a cash donation would help them to purchase the expensive foods and other things necessary to raise our little creatures back to health and into adulthood.

**Article and photographs by Anne Swinbourne
Land for Wildlife member
Upper Brookfield, Brisbane**





community

Creative Recovery Project in the Lockyer

After the devastating 2011 floods in the Lockyer Valley, many primary school children became distressed when it rained and rates of school absenteeism increased on wet days. The Lockyer Valley Regional Council, through their Land for Wildlife program, saw an opportunity to help educate students about the water cycle and to help them overcome their fear of rain.

During 2012, Lockyer Valley Regional Council initiated and co-ordinated a creative educational project, partnering with the Pilot Creative Recovery Project, which explored the role and importance of water in our lives and in the lives all living beings. This project called *Splashing About in Our Catchment* was achieved through two steps; a creative school education program, and a Land for Wildlife Community Day.

Splashing About in Our Catchment aimed to:

- Address anxiety and trauma within young people of our community relating to the extreme weather events experienced in the Lockyer Valley through engaging, fun and creative activities;
- Explore the importance of healthy water in the environment, how it moves through the local catchments and how water links all of life on Earth; and
- Facilitate the building of stronger communities and linkages between various community groups and organisations.

(below) Students worked with professional storyteller, Daryll Bellingham to create a story about their part of their catchment.

Students and teachers from five rural schools were involved in the educational component of this project to look at the role of water in the environment and in the lives of people living in the Lockyer.

Each school worked with a professional storyteller to create a section of a story about three water molecules that travel throughout the Lockyer Valley catchment, passing through each of the five rural schools involved, on a quest of discovery. Throughout the story telling process children engaged in creative thinking and imagination, music and technology. During the water molecules' journey, they passed through many elements of our catchment such as falling as rain, sailing through the air on gum leaves, passing through the bellies of platypus, travelling on the back of wallabies, being drawn up by carrots and evaporating back into the clouds.

These story sections were then transformed into a clay animation film developed by the same children with the assistance of a clay animation company. Again the children used their creative skills to work with clay technology in the development of their film. Each of the five sections were put together to create the entire catchment story.

This clay animation film was projected onto a pop-up theatre-size screen for the broader community to see at a Land

(right) Students caught and identified macro-invertebrates in the creek at Glen Rock to gauge the health of the water.

Primary school students from five rural schools in the Lockyer made a clay animation film (left), starring Splish, Splash and Splent (centre), and showcased the film at a Community Day where there were lots of creative events for everyone (left).

for Wildlife Community Day held at Glen Rock State Forest, also a Land for Wildlife property, in October 2012.

The Community Day brought together a wide section of our community, including school students, teachers, Land for Wildlife members, farmers, artists, professionals and other individual community members. A key component of the Land for Wildlife program in the Lockyer is bringing people together to strengthen a sense of community and to build networks between individuals who live in the Lockyer, while sharing an interest in the natural environment.

This Community Day had water education activities, storytelling, painting, circus activities, music, delicious locally-prepared food and a range of guest speakers. The wonderful water animation film created by the local school children was a highlight.

The project was inspiring and achieved its aims to educate, explore, encourage and connect. The making of the film can be viewed at www.nsfconsulting.com.au - click on Case Studies and then go to *Splashing About in Our Catchment*.



Article by Kaori van Baalen
Land for Wildlife Officer
Lockyer Valley Regional Council

book reviews

Australian Rainforest Fruits: A Field Guide

By Wendy Cooper and illustrated by William T Cooper

To a Brush Turkey this delicious little book is like one of those glossy gourmet books that tantalize the taste buds and inspire us to seek out new gastronomic frontiers.

Although by no means a comprehensive guide to the fruiting rainforest flora of east coast Australia, this is a fantastic resource for those of interested in learning more about the families, genera and to some extent the species of fruiting rainforest flora. This field guide covers 504 of the most common fruiting plants found in Australia's north eastern rainforests, as well as species that are rare in the wild but generally well-known. Some of the species included are also found in south-east Queensland, but on the whole this is a book about tropical rainforest fruits.

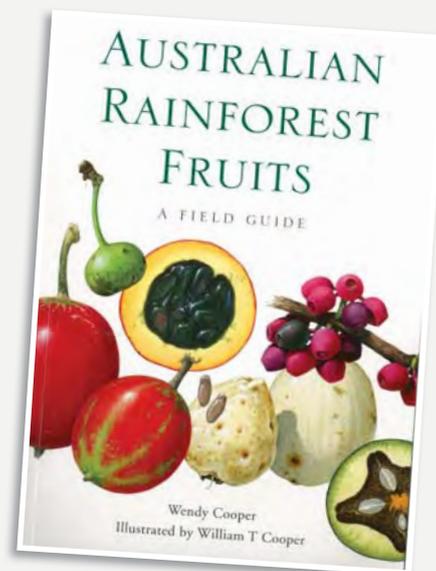
For identification purposes the life-sized images of the fruit covered by this guide are arranged according to colour of ripe fruit, then by size and form. The five broad categories - pink to purple, blue to black,

yellow and orange to red, green to brown, and white - allow people with even limited botanical knowledge to identify rainforest fruits in the tropics. However keep in mind that if you are in south-east Queensland and have found the fruit of a Yellow Carabeen *Sloanea woollsii* and you refer to this guide you could think you have found a White Carabeen *Sloanea langii* (remember to read the distribution information!).

Additional information on each species listed includes a basic species description, accompanied by a leaf drawing, a distribution map and diagnostic characters to help the reader distinguish similar species.

If you're a bit of a Brush Turkey like me and love the look of rainforest fruits, learning more about our outstanding and unique rainforests and also the art of William T. Cooper, then this is a must have for the bookshelf!

Review by Spencer Shaw



Published by CSIRO Publishing, 2013
Paperback, colour drawings, 272 pages.
ISBN: 9780643107847
Price: \$59.95
Available from CSIRO Publishing
and all good bookshops.

Australia's Amazing Kangaroos: their conservation, unique biology and coexistence with humans

By Ken Richardson

Ronald Strahan's textbook *The Mammals of Australia* has been the definitive guide to Australian mammals for many years. This book by Ken Richardson will sit proudly next to Strahan's on my bookshelf and is my new go-to resource for kangaroo, wallaby, potoroo and bettong information.

Australia's Amazing Kangaroos surprised me. By the cover, I thought this book might have been for the tourist market, but instead I found that this is a scientifically-robust, thorough and visually-engaging guide to Australia's 50 species of kangaroo, including wallabies, potoroos and bettongs. It is easy-reading, well-structured and covers an impressive array of topics. The technical components detailing kangaroo biology, dentition, genetics and evolution are in-depth but readable.

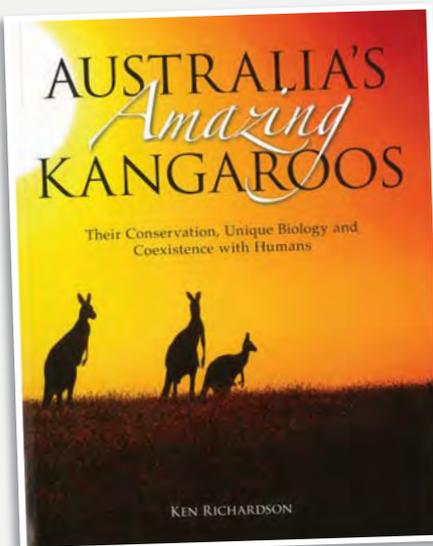
Each of the 50 species presented have fabulous photographs and informative text giving the reader a clear picture of where the animal lives, its habits and how it has responded to European settlement

of Australia. Basically, since settlement, large kangaroos have prospered; mid-sized wallaby populations have remained stable; and, small potoroos and bettongs have suffered extensive declines in population and distribution.

I enjoyed reading about evolutionary adaptations such as arboreal tree kangaroos with their large forearms for climbing in comparison to the muscular hindlegs and thick tendons of large kangaroos.

This book's conservation message is probably derived from the author's deep understanding and appreciation of native mammals. Many efforts to manage our macropods are discussed including fox and feral cat control, translocation of threatened species to predator-free islands, culling, tourism and wild harvesting. Both sides of contentious issues are presented.

Some of my colleagues at work were charmed by the photographs in this book conveying messages that not all kangaroos hop and some like to eat truffles. Indeed this book is engaging and delightful.



Published by CSIRO Publishing, 2012.
Paperback, 240 pages.
ISBN: 9780643097391
Price: \$49.95
Available from CSIRO Publishing and
all good bookshops.

Review by Deborah Metters

property profile

Soils, geology and their influence upon flora and fauna

Have you ever wondered why distinctive and unique plants occur in different areas and why they have certain relationships with fauna? Well it has a lot to do with soils and their geology, location, landform and aspect. Soils can also help determine the appropriate strategy for land management, ecological recovery and choosing plants for revegetation.

Our 5 acre property with two dams is on the road to recovery, utilising remnant vegetation, natural regeneration and planting, with an emphasis on clump and thicket establishment for fauna habitat and shelter. This includes small birds, invertebrates, reptiles, frogs and especially Red-necked Wallabies as they need resting places in hot summers, breeding places and safe locations to raise their young and to feed.

Our property lies within a bioregional ecological corridor that has unique and diverse ecosystems including Chambers Creek, Norris Creek, the Logan River, Jerry's Downfall, Flesser Reserve and wetlands that are mostly on private property. The elevated ridges have sandstone-derived deep sandy soils with a freshwater lens within an impervious basin, which supplies bores and wells all year. There are many aquifers, springs and a wetland heath - a valuable ecological commodity to all fauna, including us.

The wetlands provide essential habitat and shelter for threatened frogs, invertebrates, reptiles, bandicoots, small mammals and birds. The wetlands are adjacent to forest of Scribbly Gum, Pink Bloodwood and Rusty Gum, with geebung, banksia,

heath, herbs and native grasses. These forests provide critical habitat for koalas, (possibly) quoll and macropods (wallabies and kangaroos). Macropods require large areas of contiguous forest to allow them to move safely from the grazing meadows on alluvial floodplains of the Logan River to forests on higher ground where they shelter and breed. Unfortunately, a multi-lane motorway and underground pipeline has been approved and will bisect these unique ecosystems, causing isolation, fragmentation of essential habitat and will threaten their long-term survival.

The floodplain soils have deep, dark brown-black, loamy-clay soils that are fertile, nutrient rich, moisture holding and drought tolerant. They are dominated by Queensland Blue Gum, also called Forest Red Gum (*Eucalyptus tereticornis*), and form part of an endangered ecosystem (ie. less than 10% remains) due to past clearing, grazing and agriculture.

Queensland Blue Gum is a preferred food tree for koalas. Other dominant trees are Grey Ironbark (*Eucalyptus siderophloia*), Gum-topped Box (*Eucalyptus moluccana*) with Carbeen or Moreton Bay Ash (*Corymbia tessellaris*), Soap Tree (*Alphitonia excelsa*) and several wattles. These fertile soils support diverse invertebrates which are efficient soil conditioners - earthworms, ants, crickets, beetles, cicadas, spiders and centipedes. Similar soils on our property have deep cracks during dry times and close following wet seasons. They drain slowly and develop ephemeral ponds with sedges, lilies and rushes that enable opportunistic frog breeding.

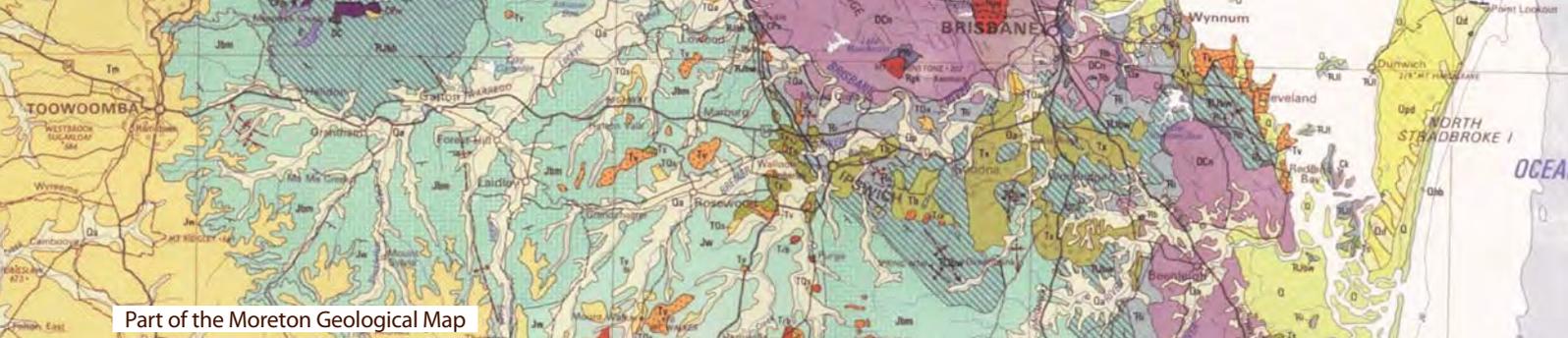
Floodplain areas sometimes form galgais, also called melon holes, which are small, ephemeral, shallow lakes that provide favourable habitat for Swamp Tea-tree (*Melaleuca irbyana*), a tree that is only found in South-east Queensland, and forms part of a listed endangered ecosystem.

Despite minor grazing, we have a diverse understorey including scented-top grass, love grass, kangaroo grass, barb-wire grass, sedges, club-rush, jasmine, glycine, spade flower, amulla, blue trumpet, native cobbler's pegs, blueberry lilies and red-flowering native passion vine. There are also a range of regenerating rainforest plants due to the proximity of the Logan River including Rough-leaved Elm (*Aphananthe philippinensis*), Whalebone Tree (*Streblus brunonianus*), Tuckeroo (*Cupaniopsis anacardioides*), White Cedar (*Melia azedarach*) and laurels.

The soils up on the small sandstone ridge changes to red-brown sandy loam with areas of fine white powdery subsoil embedded with large red iron rocks. The vegetation also changes to Rusty Gum (*Angophora leiocarpa*), Pink Bloodwood (*Corymbia intermedia*), Casuarina and Dogwood (*Jacksonia scoparia*).

The diversity and amount of fauna has increased with the recovery of the understorey as there is now a greater range of available food resources. The understorey attracts a multitude of invertebrates such as numerous species of ants and spiders. The invertebrates attract a diverse range of birds including the pacific baza, dollarbirds, wrens, thornbills and honeyeaters. There are also pigeons, doves,





Part of the Moreton Geological Map

koalas (not for the last two years) and Red-necked Wallabies. Other interesting species include gliders, microbats, fruit bats, small-eyed snakes, eastern brown snakes, keelbacks, blue-tongue skinks, a buff-banded rail that was befriended by a guinea fowl, whipbird, grey-crowned babbler, brown falcon, broad-palmed rocket frog, dwarf tree frog, graceful frog and ornate burrowing frog.

Once the relationship between soils, geology and vegetation has been determined, there needs to be a sharper focus upon the types of weeds and their impact on native species, ecosystem health and function. Weeds are often indicators of past practices including soil loss from clearing, cultivation, overgrazing, roads and edge effects, and stormwater into creeks carrying sediment and higher nutrients, resulting in rapid colonisation of stream banks. Generally, areas with lower nutrients on sandstone or dry slopes, metamorphic or heath have less impacts from weed than fertile, higher nutrient areas with stock, creeks, wetlands and gullies.

It is better to treat weeds as an ally rather than the enemy. After all they are non-native plants and may dominate an area, but they can also prevent soil erosion, provide mulch, habitat, food resources and shelter. By observing fauna interaction during flowering and fruiting you can determine how the weeds are being spread. For example, possums, birds, bats and rats disperse the seeds of pepper trees, camphor laurels, pine trees, privet, duranta, lantana, ochna, corky passion vine, deadly nightshade and climbing

asparagus. Other modes of transport are wind, water and mobile animals such as stock and macropods. Machines can spread cobbler's peg, khaki burr, annuals, pine trees, tipuana and grasses. Note that the seeds of cobbler's peg can remain viable for 20+ years! Some weeds really are worse than others!

A major contributor to ecosystem decline is from introduced grasses such as guinea grass, signal grass, molasses grass and swamp foxtail, all of which have a short lifecycle, are tall and bulky, and dry out in winter and spring, increasing fire intensity and frequency. These introduced grasses provide a clear example of how disastrous environmental weeds can be. The consequences from these introduced grasses can be deadly for native flora and fauna, especially fire-sensitive legumes, herbs, ferns, shrubs and especially for many invertebrates that shelter in gullies during winter dormancy and are killed by hot, frequent fires.

It is vital to adopt the precautionary principle regarding fire use, and to manage mosaic patches to allow regeneration for several years without fire. I recommend the book *The Biggest Estate on Earth: How Aborigines Made Australia* by Bill Gammage.

Knowing your weeds and being forewarned will help break the perpetuating weed cycle. It is important to adopt the precautionary principle with weed management and avoid wholesale clearing or control measures that will remove all food resources, shelter, shade and result in another set of weeds that could be worse

than the last ones. It is important to remove patches of weeds and then replace them with diverse native flora and food resources as quickly as possible.

My theory on weed control can be summarised as Reduction, Prevention and Intervention:

1. Reduction in size, extent and population. Reduce weed trees and vines to a manageable shrub. Depending upon extent of problem, choose manual removal, pruning, stem injection or cut and swab with glyphosate to trees and shrubs, and mosaic spraying for invasive groundcovers and grasses.
2. Prevention of seeds and mature fruit, and prevention of weeds spreading to new areas especially annuals and grasses through slashing or mowing.
3. Intervention of the plant life-cycle by allowing flowers for diverse invertebrates to forage but intervention to stop fruit and seed maturity.

Whilst you can be responsible and maintain a healthy habitat on your own patch of land, ultimate success is also dependent on cooperative management by adjoining landholders to recognise weeds and prevent them from getting out of control, and to retain habitat and vegetation linkages that enable fauna movement.

**Article and photos by David Gasteen
Land for Wildlife member
Munruben, Logan**

(far left to right)

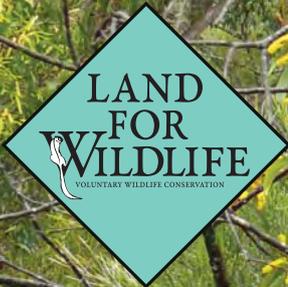
A family of Tawny Frogmouths in a Grey Ironbark (*Eucalyptus siderophloia*).

The native passionfruit vine (*Passiflora aurantia* var *aurantia*) is a gentle climbing vine with red stems, flowers and fruit. In contrast, the aggressive introduced Corky Passion Vine has black fruit.

Buff-banded Rails are taking advantage of the restored habitat.

This patch of native vegetation is fenced off to encourage a dense understorey for invertebrates and other wildlife that are dependent on them.





Turkey Tangentials

Adorable Acacias

Mim O'saceae the famous Irish botanist was once quoted as saying "Acacias are the potatoes of the tree kingdom, providing sustenance to whole ecosystems"! Never a truer word was spoken in jest.

Life in Australia without Acacias would be pretty bleak. These fast growing, soil improving, carbon collecting, fast food outlets for fauna, well and truly get the ecological ball rolling in all of Australia's many and varied ecosystems.

Acacias are a very misunderstood genus, maligned for either their tendency to grow too quick and thus be a weed in the paddock, or their tendency to fall down after 5-15 years of phenomenal growth in the garden.

These apparently negative traits in humanities eyes are however the wattle tree's niche in the greater scheme of things. They have evolved to take advantage of the regular disturbance or even catastrophe of fire in Australia and also now take advantage of the disturbance and catastrophe European settlement has brought. What we must learn to do

is harness the tremendous vegetative energy of the wattle, and as land managers, allow it to improve soils, halt erosion and create ecological diversity. And see that phenomenally quick growth, leaf litter and all that dead and rotting wood for the great benefits and not negatives that they can present us with.

Acacias belong to the Mimosaceae family and are a legume. Legumes supply a nice cosy home in nodules on their roots for specific bacteria that convert nitrogen present in the air into a form the Acacia can use as food. This gives Acacias the edge in colonising degraded nutrient impoverished soils.

All Acacias produce a bean like pod that is ripe when it dries and then splits. The seeds are also like beans but smaller, black or brown and very hard. Please don't be tempted to test this hardness with your teeth, the seed will win!

Plant an Acacia now and enjoy its shade next year!



Spencer Shaw
*Land for Wildlife member
Owner, Brush Turkey Enterprises
Reesville, Sunshine Coast*

Land for Wildlife South East Queensland newsletter is published by SEQ Catchments with support from the Australian Government's Caring for our Country.

Opinions expressed by contributors to the Land for Wildlife newsletter are not necessarily those of the Land for Wildlife program nor any of the supporting agencies.

Printed on Revive Pure Silk, made from 100% post-consumer recycled paper. Sales of Revive help support Landcare Australia.



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