Spring 2011

newsletter
for the Queensland Murray-Darling Basin

QUEENSLAND MURRAY-DARLING COMMITTEE

Greetings,

I was fortunate to be joined by members of the Toowoomba Bird Observers Club as well as Pip from the QMDC Goondiwindi office and Emily from the Roma office during a visit to a couple of properties in the Tara area recently where we were able to observe many of the fascinating native flora and fauna species occurring in that area. Unfortunately this whole district is heavily under threat from the increasing activity of the extractive industries. There has been a lot of discussion about the potential impacts of these industries on good agricultural land. We all know that good agricultural land is crucial to a productive agricultural industry and for future food production and therefore should be protected. But what about other areas that are also under threat or being impacted?

As I drove along a road on the way to one of the properties, the farmer in me gave rise to the thought "well this is pretty rough country, not much use for anything" but then the naturalist in me recalled the words of one of the property owners "it's a home to goannas and wildlife in general". This is so true of many of the 'rougher' areas in our landscape. Areas that are not considered as 'useful farmland' have often been the ones that have survived (or recovered from) the axe, the chainsaw and the dozer and have provided a last refuge for many of our flora and fauna species. Sadly, now many of those areas are in the firing line of a new industry.

Take for example, Delena Weldon and Oscar Lawrence's property. A 12 ha lot where only a couple of acres are 'simplified' around the house, mainly for fire protection. The remainder of the property is diverse habitat with over 100 species of birds having been recorded on the property. The block is approx. 200m x 600m. Now imagine if we were to insert one gas well on the property. The well foot print takes up at least two tennis courts or 1000sqm, plus an access road, plus the pipeline to transport the gas has a corridor width of 30m to 40m for its entire length; soon a good proportion of the property is disappearing under the earthworks of a gas well and pipeline, whilst the remainder of the property suffers the associated edge impacts.

One can only hope that value of properties such as this, where the landowners have worked hard to improve and protect biodiversity values can be acknowledged and taken into account during the planning and locating of the resource industry's infrastructure.

Sandy Robertson

Regional Land for Wildlife Coordinator
QMDC

In this edition…

Research project gives insight into elusive pythons

Have you ever heard of a bilby snake? Or a woma python? Well they are actually the same snake, *Aspidites ramsayi*. Across Australia they are known as woma pythons but around the Roma-St George region they are known as the bilby snake. Why? Old timers say they used to be found in and near bilby burrows. And the old timers are right.

University of Queensland PhD student Melissa Bruton has spent the last 12 months catching and radio tracking the elusive (and harmless!) woma python on an Australia Zoo conservation property near St George. And she has found that during the winter they live exclusively in underground burrow systems, just like the burrow systems that the bilbies used to dig in this area. It is likely that some of these systems are old bilby and rabbit burrows but others are a real mystery. You see there's no large entry for a rabbit to go into, only holes just big enough to let a woma python inside. Who's creating these burrows?

Part of the answer lies with an equally elusive lizard – the yakka skink *Egernia rugosa*. These shy lizards are about the size of a blue-tongue lizard but brown and very, very fast! Yakkas live in communal burrow systems and they have been sighted or caught outside nine woma burrow systems whilst Melissa has been tracking the pythons. Are they digging the burrows? Possibly, but some of the burrows are very extensive! What else could it be?

A yakka skink

Melissa's research is telling us a lot about the (very!) secret life of woma pythons. You are extremely lucky if you see a woma python because they spend so little time out in the open. In fact if you do see a woma python, Melissa would very much like you to tell her about it because so few sightings have been recorded south and east of Surat. Keep an eye out for them in that same area because each one has a home range of up to 2km x 2km and where there's one, there are hopefully more! You can contact Melissa on 4625 7560 or melissa.bruton@uqconnect.edu.au to tell her about any pythons you see.

A woma python

How do you identify a woma python? You will most likely see them stretched out crossing a road or track. The most distinctive clue is a banded body with yellow markings on the head and jaw and obvious black patches over the eyes. The banding and colouration fades on older pythons (to almost a monotone dull brown) but they still retain very faint banding and that distinctive yellow/orange on their jaws. Careful you don't mistake them for the more slender banded western brown snake *Pseudonaja aspidorhyncha* though! Woma pythons can grow to about 2.5m (8 1/2ft) and the biggest one Melissa is tracking is 2.1m (7ft) long Big Bobby, a very old python.

A western brown snake with narrow banding – note the dark head and slender build

A western brown snake with broad banding – once again, note the dark head and slender build

Woma pythons are great to have around (especially big ones) because they won't hurt you but they will eat

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venomous snakes such as mulga (king brown) and brown snakes. They are also too slow to catch most cats and dogs.

For more information check out:

http://blogs.abc.net.au/queensland/2011/05/tracking-snakes-with-melissa-bruton.html?site=southqld&program=southern_queensland_afternoons (ABC interview with Georgia Stynes)

www.womasqueensland.blogspot.com/ (Melissa's blog about some interesting woma happenings)

http://www.australiazoo.com.au Australia Zoo information page

A hatchling woma python – note the bold patterns and bright head colours

A big old woma python 'Big Bobby' stretched out across the track. Notice how faded the pattern becomes but the head is still yellow/ orange tinged.

What's happening now!

Return of the channel billed cuckoo.

After a conspicuous absence last year, I heard my first channel billed cuckoo for the season on September 29. The dollar birds have also arrived just as we go to print, with their cackling call and aerobatics as they court and feed on flying insects. 'Stags' or standing dead timber are important to this species for both hollows and as a perch from which to launch their aerobatic displays.

Nesting activity

Throughout August and September, tawny frogmouths have been announcing their nesting site and are now incubating their eggs on a flimsy platform of sticks, usually in the fork of a tree. Their soft, low, continuous oom oom oom can be heard throughout the night.

Many welcome swallows move up north during winter. They now start to reappear in breeding areas. Welcome swallows are hunters of flying insects. They build cup nests of mud and rootlets plastered to vertical surfaces. Before European settlement, they were limited to caves and tree hollows. Now they exploit sheds, bridges, tunnels and mine shafts. Two or three broods may be reared in a season from clutches that usually number up to six eggs.

~~Furry~~ Scaly Facts

Australia: Land of Lizards

Australia has been traditionally known as the land of snakes and all things venomous and creepy crawly, however, there are more species of lizards than people realise, and the skink family alone outnumber all of the snakes.

Geckos (um...geckos) …...60 species
Pygopodids (legless lizards)……. about 30 species
Agamids (dragons)…….60 species
Varanids (goannas)……..25 species
Scincidae (skinks)……...320 species

There are about 156 species of snakes including about 33 sea snakes. Many of the legless lizards are easily mistaken as snakes and are victimised as such though they are far too small to be dangerous even if they were snakes.

How do we achieve landscape scale control of weeds where multiple managers act independently? (Coutts *et al*. Unpublished).

Most damaging weeds infest many properties within a landscape, with each manager being able to control only a small part of the whole weeds population. Therefore, to achieve good landscape scale control of weeds, manager behaviour needs to be taken into account along with weed ecology and available management strategies. Management behaviour is expected to have important consequences for the spread and persistence of weeds. For example, even if everyone in an area can eradicate the weed, the weed may still persist and spread due to mismatches in the timing of control or because a few land managers have little motivation to control the weed (e.g. non-commercial farms or those with very different production systems). In both cases the problem is the same, that at any one time some part of the weed's population is left uncontrolled, which can lead to the infestation of new areas and/or reinfestation of recently controlled properties.

We tested to what extent this might affect weed invasions by modelling the spread of two pasture weeds, serrated tussock and African lovegrass, in landscapes where they are controlled. In this model, control was carried out by a large number (4096) of simulated land managers who each decide whether to control or not on their own piece of the land. Our simulated land managers made this decision based on different aspects of human behaviour: attitude to profit, conformity to social norms, response to pressure from neighbours and individuals' level of motivation. Land managers' ability to recognise and act on expected benefits also influenced how consistently economic and social motivations resulted in action.

We found that factors which synchronised weed control among land managers greatly reduced the extent of weed invasions. These factors include a high cost for leaving the weed uncontrolled and land managers' ability to perceive and act on the benefits of weed control. If most managers in a landscape believe that weed control is a good idea, and consistently act on it, then weed control efforts tend to occur at the same time and the weed's extent can be greatly reduced. In some cases a few managers will have less motivation to control due to different economic goals. One or two unmotivated managers did not make a difference to the spread of either serrated tussock or African lovegrass. However, if long distance dispersal was possible (e.g. transported by road), a small minority (*ca*. 10%) of land managers who were reluctant to control could lead to the whole landscape being infested.

As serrated tussock is both economically damaging and has effective control strategies in place, most simulated managers chose to control it on economic grounds and social norms were less important. In contrast, for African lovegrass the economic grounds for control were less clear, as a result strong social norms to control were very important.

We currently have a project to extent this work to look at Chilean needle grass and Parthenium. We are gathering better data on what motivates people to control these weeds and how much they know about their surrounding properties. This data will be used to create a model that is more strongly grounded in reality. With the new improved model we will be able to ask more useful questions, like, given a land manager does not know exactly what others will do, should they control their weeds, and if so how much. What happens if all their neighbours control? What if none do? Being able to provide sensible answers to these sorts of questions is our goal.

University of Queensland research scientist, Shaun Coutts, needs landholders on the Darling Downs for a project studying what motivates people to control weeds and how much landholders collaborate with their neighbours to manage weed threats.

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Landholders are invited to complete this short survey:

https://www.surveymonkey.com/s/CNG_land_manager_survey

The project is funded by the Rural Industries Research and Development Corporation (RIRDC) and the ARC Centre of Excellence for Environmental Decisions (CEED) and being delivered by the team at the Buckley Plant Ecology Lab.

buckleyplantecologylab.wordpress.com/weeds-mlm-project/

The results will be used to model the impact of landholder behaviour on weed containment and spread and identify the influencing factors and inform the development of weed management strategies.

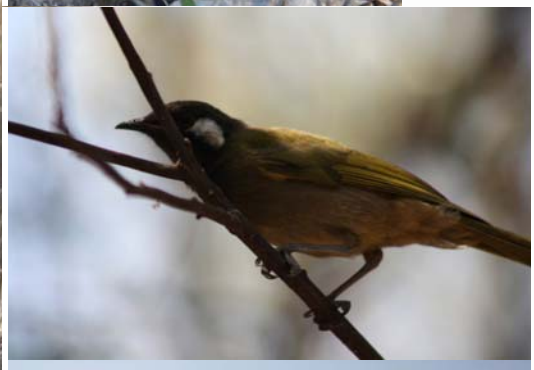
For further information please see the attached summary of the project or contact:

Shaun Coutts
Post doctoral research fellow
University of Queensland
0418 961 382
s.raymond@uq.edu.au

Some photos from the Kumbarilla/Tara area

Clockwise from top left:

- Sundew (*Drosera indica*) a sign of groundcover in good condition
- *Hakea purpurea*
- Forest grass tree (*Xanthorrhoea johnsonii*)
- Bark of the thready barked sheoak (*Allocasuarina inophloia*)
- Sandstone boronia (*Boronia glabra*)
- Gasline clearing
- White-cheeked Honeyeater



New number to call for sick, injured or orphaned wildlife

The RSPCA and Department of Environment and Resource Management (DERM) have entered into a new partnership to create a centralised point of contact for all public calls regarding sick, injured or orphaned wildlife. The number, 1300ANIMAL (1300 264 625) will connect you to an RSPCA operator who will take responsibility for organising an appropriate response i.e. instead of you, the rescuer, phoning 10 different wildlife carers to find someone to take on your sick or injured animal, the RSPCA will do the ringing around and will call back with the details.

This system should streamline wildlife rescues and reduce response time to assist animals in distress with the call centre being linked to a wildlife carers database, wildlife ambulances and wildlife heroes.

This system commenced July 1, 2011 for a 12 month trial period.

What is a wildlife hero?

Wildlife Heroes help rescue or transport an orphaned, sick or injured animal when rehabilitators are otherwise unable to do so. For example, Wildlife Heroes may be asked to collect animals and transport them to a licensed carer or veterinarian so that animals in distress are not left waiting. Wildlife Heroes don't have to be licensed wildlife carers or even have specialised knowledge of wildlife. They just need to care about wildlife and be prepared to lend a helping hand every now and then.

To become a Wildlife Hero, register with the RSPCA Qld on (07) 3426 9999 or email wildlife@rspcaqld.org.au.

Name this bird...

Email me if you think you know what bird this is. It was flying around a dam near Oakey. It was on its own, but then was joined occasionally by four or five others wheeling around.

Cane toad workshops

QMDC ran a recent series of workshops across the region providing information about the biology and ecology of the infamous cane toad. Also sharing her wealth of knowledge and experience with the workshop participants was Kim Hands from the Western Australia based Stop the Toad Foundation (STTF). STTF is a not-for-profit, non-government organisation established in 2005 to prevent the spread of the cane toad from the Northern territory into Western Australia.

Although admittedly, unable to prevent the inevitable march of the toad into WA, the assistance of many volunteers has enabled the foundation to successfully remove 1750,000 cane toads from the environment in Northern Australia during the past five years.

In the process, the foundation has developed an effective and efficient method of protecting specific areas: ***exclusion fencing***. The STTF aim to further develop this method of toad control so that it can be used to keep toads out of pristine areas such as National Parks and areas of high biodiversity. Emma Gorge at the El Questro wilderness park is one such area benefiting from this approach. See www.stopthetoad.org.au/media/2011/media110315.php for more information.

***Bufo marinus* or the Cane toad**

The recent workshops looked at a simple method of establishing exclusion fences around farm dams and other water bodies, that landholders could use to help control cane toad numbers in their local area. The exclusion fence essentially creates a barrier between the cane toad and the water body. When toads come out in the evening, the head for water but are prevented by the exclusion fence. The toads, unlike many of our native animals, are not smart enough to climb or jump over or find a way around the barrier, so they sit there and are easy pickings for collectors to pop them into a sack and take for euthanising.

Whilst a little bit time consuming to set up and initial outlay for the materials, the methods is reasonably simple and can be dismantled and reused on multiple sites. Fences are usually set on one site for at least 5—7 days to ensure all toads in the area have had a chance to be collected.

Exclusion fencing around a farm dam

The great cane toad debate

There are somewhat polarised positions on both the ecological impacts and the best approach to control cane toads. To make up your own mind warrants some further reading.

Team Bufo is a group undertaking scientific research on cane toads in the Northern territory, New South Wales and Queensland. Their website is www.canetoadsinoz.com and is worth an explore.

The **Kimberley Toad Busters** are another organisation engaging in the physical battle against cane toads www.canetoads.com.au.

DEEDI has some general information on cane toads www.dpi.qld.gov.au/4790_8270.htm

And the **Australian Government** also has some general information as well as links to national strategies (threat abatement plan) and other documents. www.environment.gov.au/biodiversity/invasive/ferals/cane-toads/index.html

Toads do not climb, jump over nor are able to find their way around the fence, but gather and are easy for toad busters to collect for humane euthanising.

Don't miss out on important dates and events—send me your email address!

Often I receive notification of upcoming events too late to include in our quarterly newsletter, so the best way to get this information out to the relevant people on time is via email. However, in attempting to get a flyer out recently I found that the email list was desperately out of date, so I am asking for your assistance to let me know your current email address. This way I can let you know of events that might be taking place in your local area in a timely manner. So that I don't have the onerous task of searching each person up on the database, if you have email, could you please email me your name, email address and the postcode of where your Land for Wildlife property is located.

I will continue to send hard copies of the newsletter, (unless you request otherwise) and your email address will not be used for anything other than notifying you of events in your local area that are relevant to you as a Land for Wildlife member.

Email to: sandyr@qmdc.org.au

Members of the Toowoomba Bird Observers Club (Ken McKeown, Michael McGoldrick and Al Young) join us at Delena and Oscar's property near Tara. Considering the late start and windy conditions a creditable total of 30 species were observed, adding a couple more species to Delena's previously recorded, impressive total of 103.

LAND FOR WILDLIFE
VOLUNTARY WILDLIFE CONSERVATION

Contacts

For general information about Land for Wildlife, please contact the Queensland Murray-Darling Committee on 07 4637 6200 or go to qmdc.org.au

Did this newsletter reach you at your new address?

If you have changed your postal address, phone number or email address, please contact the Queensland Murray-Darling Committee to tell us your new details.

email: landforwildlife@qmdc.org.au ■ phone (07) 4637 6228

If you would like to arrange for a Land for Wildlife assessment on your property, please contact the Land for Wildlife representative nearest to you.

Sandy Robertson
Land for Wildlife Coordinator
Toowoomba
P (07) 4637 6228
F (07) 4632 8062
E landforwildlife@qmdc.org.au

Pippa Bagshaw
Biodiversity Technical Officer
Goondiwindi
P (07) 4671 7900
F (07) 4671 2966
E pipb@qmdc.org.au

Emily Rogers
Biodiversity Technical Officer
Roma
P (07) 4620 4600
F (07) 4622 6060
E emilyr@qmdc.org.au

South West NRM
Vegetation & Biodiversity Officer
Charleville
P (07) 4656 8500
F (07) 4654 1600
E biodiversity@southwestnrm.org.au

Land for Wildlife online: via www.qmdc.org.au
(follow the links via 'projects' to 'Land for Wildlife')

Land for Wildlife in the Queensland Murray Darling-Basin is coordinated by the Queensland Murray-Darling Committee (QMDC) on behalf of South West Natural Resource Management Group (SWNRM) and Condamine Alliance.

QUEENSLAND MURRAY-DARLING COMMITTEE

LANDCARE & CATCHMENT MANAGEMENT QUEENSLAND