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# ACTHA Inc. News Dec '15 - Jan '16

Newsletter of the ACT Herpetological Association Inc.

# Your Committee for 2015 - 2016

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## In this bumper issue!

Mulligans Flat turtle patrols: the community helps these wonderful reptiles, plus a last minute goanna sighting, p2.

'My first reptile': Geoff Robertson reviews this new book, aimed at those young herpetologists out there, p3.

Managing kangaroo grazing for the conservation of grassland and grassy woodland fauna: Brett Howland, ANU, was our guest speaker at the 20 Oct '15 ACTHA meeting and a detailed summary of his presentation starts on p4.

The party's over for the Striped Legless Lizard in Australia's capital: a colony in Canberra is being relocated to NSW, p8.

Man finds giant goanna chilling on side of his NSW home: news report, p10.

The Australian & International Scene: A collection of reptile sightings in our region, starts on p11.

Mysterious photo appears to show black snake eating its way out of brown snake, p14.

A Murrumbidgee Field Naturalist is bitten by a Coastal Taipan on a field trip, p14.

Frog loving french town constructs frog tunnels to prevent roadkill, p15.

A tour of Canberra Nature Map, Geoff Robertson explains to members how they can use the CNM to personally enter or discover numbers and locations of herpetofauna in the Canberra region, from p16.

# Diary date

The *bi-monthly* meetings of the Association are usually held on the **third Tuesday of the month** at **7.30pm**. Our usual venue is: *Belconnen Soccer Club*, **Hawker** 

**Upcoming meeting** 

(cnr Belconnen Way & Springvale Drive)

# **Christmas party for ACTHA members**

from 6pm, Tuesday 15th December 2015

to be held at Canberra Reptile Zoo, O'Hanlon Place, Gold Creek, Nicholls.

\*\*\*\*\*\*\*\*

A selection of food & drink will be available for all financial members. (Margaret will have her receipt book for last minute membership subscriptions, still only \$10pa)

RSVP to margaretning1@gmail.com by Sunday, 13 December 2015 pls

In addition to our normal party fare, Peter Child will give a talk abut the rather

large Burmese Python that now calls the Zoo home. Got a feather boa? Prize for most outstanding one worn on the night!!

Of course we shall take the opportunity to discuss Snakes Alive! 2016, who can volunteer and who can provide animals.

# Mulligans Flat turtle patrols

By Margaret Ning

At ACTHA's April 2015 meeting the main speaker was Bruno Ferronato, a University of Canberra PhD candidate, who talked to us about the problems many reptiles were experiencing with the predator-proof conservation fence at Mulligans Flat. Long-necked turtles in particular, but also lizards (shinglebacks, eastern blue-tongues and eastern bearded dragons) and eastern brown snakes had been adversely affected. Turtle deaths were being caused by overheating, attacks by predators outside the fence, vehicle collisions on a nearby road and entanglement. At the end of his talk Bruno referred to various ways that these deaths could be minimised, and mentioned the possible future

use of volunteers to manually assist the animals across the fence.

In late October
Bruno let me
know that turtle
patrols had
commenced along
the fence and that
volunteers had
been relocating
turtles.

I asked Emily Belton, project officer for the woodlands and wetlands trust, how the turtle patrols were going, and she said they had been "absolutely overwhelmed by the fantastic response to the project". Sixty one people had attended training days and most 'shifts' are booked out until April 2016. In the month the project has been running, the turtle patrols have so far relocated 184 turtles.

Currently only eastern long necked turtles are being relocated by the patrols. Bruno's research has indicated that the turtles are definitely the reptiles most at risk of mortality along the fence, and while shinglebacks and bearded dragons are often seen hanging out around the fence they appear to be soaking up the warmth of the gravel road nearby. The turtles, however, are clearly on a mission to get to the other side of the fence, so the daily turtle patrols mean more eyes on the ground reporting all sorts of observations back to Emily. To ensure the patrols are effective, Bruno had researched where the turtle high traffic areas are.

While they have sufficient volunteers at this stage, Emily is thinking of expanding the project and is happy for people to get in touch with her if they are interested in joining the team:

Emily.Belton@woodlandsandwetlands.org.au



The turtle patrols' very first happy customers. Five eastern long-necked turtles being relocated to the large dam inside Mulligans Flat Woodland Sanctuary

# Rosenberg's Monitor spotted

*Matthew Higgins* sent in these pics just as we go to print! "Today's pics (Monday, 7 Dec '15) of an 'up close and personal' Rosenberg experience on Mt Ainslie.

I only knew the animal was there due to the warning calls of Noisy Miners and a few other birds. I'm glad I took notice! The monitor ran across the ground and halted under fallen timber - you could have walked within a metre of it and not seen it.

As the 'camouflaged' head image shows, he/she was well hidden. The spot was well down the hill from the termite mounds that we've been staking out, so the animals' range is larger than anticipated, - the monitors evidently come surprisingly close to the reserve/suburb interface - remarkable given the amount of dog-walking that goes on. The monitor's length is about a metre."

Turn to page 10 for more goanna stories, and don't forget to visit our website in a week or so to view the wonderful images in full colour!

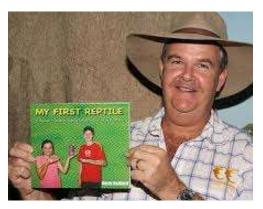


## 'My First Reptile'

Book review by Geoff Robertson

'My first reptile' is the title of a 100 page book by Gavin Bedford, subtitled 'a beginner's guide to keeping a reptile as a pet in Australia'.

The book contains a short of account of Gavin's life



and his 'passion for keeping and studying reptiles'. His early life story seems not atypical of people I know with an obsession for all things reptile. As a child he grew up in Adelaide, kept a blue-tongue lizard

and then a long-necked turtle - his parents would not let him keep a snake. He joined the South Australian Herpetological Association to hear about reptiles and participate in field trips. After leaving school and working as a ringer on cattle properties, then attending university to obtain an economics degree, he found himself moonlighting as a volunteer capturing monitors, seemingly for research. Indulging his reptile addiction he decided to study reptiles and successfully obtained a diploma, masters degree and PhD associated with reptilia. He now manages Crocosaurus Cove in Darwin.

His book is fascinating for anyone who keeps reptiles, and while it states that it is aimed at children, I think it is best read by parents and their children. It would be an exceptional kid who would purchase the book, read it and digest it. However, as a joint reading project informing a parent and child of what is involved in reptile keeping and their responsibilities as a reptile keeper, it is a gem. The research for the book has obviously involved talking to children and attempting to understand their attitudes. Gavin introduces a cartoon character, Millie the gecko, who appears throughout the book to make observations about reptile keeping.

The book is well presented and may be read on different levels. It may be flicked through allowing the eye to be drawn to bubble thoughts or short summaries of key issues, or it may be read selectively focusing on those sections that are most relevant to the reader. If read from cover to cover, there is a fair bit of important repetition.

I would highly recommend this book to anyone considering owning or keeping a reptile. If this is a parent-child project, each reading the book would enhance their relationship and encourage joint responsibility. For an adult keeper, the book provides a benchmark or series of checklists that may be used to reflect on one's own approach and practices in reptile keeping. While the book may seem a little longish, it is not essential to read it from cover to cover, because one can pick and choose what parts are most helpful. It provides a very useful reference enabling a reptile keeper to re-read those parts that are relevant to particular issues that emerge.

The early sections of the book talk about such things as how a child might talk to parents about keeping a reptile, undertaking the necessary research about reptile keeping, how the family decides what reptile is selected and how it is managed, along with legal requirements and reptile-keeping responsibilities. These sections are full of sane and comprehensive advice and contain many useful tips and insights. The next six sections are devoted to selecting and keeping 'entry-level' animals in order of difficulty of keeping them. There is a fairly detailed summary description of buying a reptile and bringing it home, enclosure and furnishing requirements, lighting and heating, and water and food. Where more attention is needed, such as the feeding of a snake or the water needs of turtles, these subjects are dealt with fairly extensively. Each animal section is finished by 'possible problems'.

The final section covers more general subjects for those with some experience, including general captive husbandry such as regulation of body temperature, use of ultra violet light, water and diet, record keeping and breeding (but not in detail). Health problems such as stress, skin ailments, respiratory infections, canker, blisters and parasites are highlighted, as is when to seek assistance. Some words on reptile death, reptile groups, and expos follow.

I am sure that many experienced reptile keepers will not agree with every issue discussed in the book. However, as I said earlier, the book provides a very useful framework and benchmark against which to consider one's own keeping practices. I found his calling reptiles 'pets' not particularly to my liking, I prefer the concept of 'reptile keeping', and I was a little shocked by reference to live food, although Gavin generally advises against this.

The book retails for about \$24, a very worthwhile investment for potential and existing reptile keepers.



# Managing kangaroo grazing for the conservation of grassland and grassy woodland fauna



Brett Howland, ANU, was our guest speaker at the 20 October '15 ACTHA meeting.

This summary by Mandy Conway

#### Background

Grasslands and savannah ecosystems occupy over 20% of the earth's land surface and can be found on every continent inhabited by humans. It occurs in areas where low or variable rainfall and soil limit the growth of trees and is maintained in areas through

disturbance imposed by fire and grazing, where woodland and forest would otherwise thrive.

Grass is a very productive plant and grassy ecosystem supports the highest level of animal biomass per unit area of any ecosystem. Large herbivores play a very important part in promoting species diversity in these system due to a long co-evolved history.

Today over 95% of global grassy biomes have been substantially modified by humans and Australia is no exception. We are probably one of the worst culprits globally, having lost about 99% of our natural grasslands and 95% of our box gum grassy woodlands.

#### The herbivore community has changed

Mega fauna has ceased to exist and has been replaced by livestock: The biggest change to our grassland ecosystem occurred around 30,000 years ago, with the loss of the large marsupial grazers and browsers. As a consequence of human hunting and climate change over 20 species of large animal went extinct around this time, with only the smaller and medium sized animals surviving. The next biggest change came with the arrival of Europeans.

The intensity of grazing has changed, partly due to the eradication of large predators: With European settlement we saw a change. High densities of livestock replaced the natives and this had a huge impact on our ecosystems.

The pattern of grazing has changed: with barriers to migration and the establishment of permanent watering points.

## The intensity of grazing has changed

Historically, kangaroo populations were limited by predators such as the dingo and human hunting, however today they are no longer regulated by a top down predation process. Under these conditions kangaroo populations can and have increased. These increases can continue to occur until eventually populations are regulated by food, otherwise known as bottom up regulation, which often encompass annual starvation events.

Herbivores trapped within protected areas will deplete food to very low levels. 'Marsupial lawns' is the term often used to describe these heavily grazed areas with limited grass structure, which can occur over entire landscapes - it can be devastating to biodiversity.

The biggest impact can occur in times of drought, where kangaroos will basically eat every blade of grass. "It's not hard to imagine that if you are a ground dwelling bird or a reptile this landscape is not ideal for use". Brett said. "Although this makes sense, there is little scientific data to support this theory."

#### Study design

The first question Brett sought to address in his PhD was whether grazing at intermediate levels was indeed optimal for biodiversity conservation. "To address this question I needed to capture sites grazed by kangaroos that covered a range of grazing intensity, from very low to very high." Brett said.

"The key question in my thesis was 'What levels of grazing are optimal for the conservation of biodiversity?'. In order to quantify this I needed to capture a range of grass structures. The map below shows the distribution of grassy habitats in south-eastern Australia. I searched for grassy habitats where grazing was predominantly by Eastern Grey Kangaroos, selecting 24 study sites;

19 in the ACT, 3 in NSW and 2 in VIC. I measured grass height, grass structure, surveyed reptiles and birds, estimated kangaroo density and measured other important vegetation attributes.



Two animal groups were chosen for the study, reptiles and birds, as they were likely to be sensitive to differences in grazing pressure and both were diverse across grassy habitats.

"Because the effects of grazing may vary based on tree cover, I developed a canopy cover map for all study sites. This map split vegetation into grassland, open woodland, woodland and forest. I've then placed 75 m radius experimental plots at random within the different tree canopy classes. These plots were at the core of my data collection."



Detailed measurements of grass structure were taken, including grass height, grass biomass, and percentage of grass cover within 25m quadrants. All these measures were highly correlated in order to simultaneously capture all the information - they

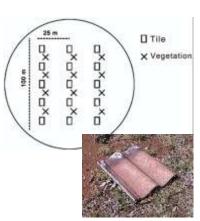
were combined into a single variable called 'grass condition' using principle components analysis.

#### Reptile surveys

'Eaten out of house and home: The impacts of grazing on ground dwelling reptiles in Australian grasslands and grassy woodlands', was the title of Brett and his colleagues' first paper, published in 2014.

"We selected reptiles to investigate responses to grazing for several reasons: they are dispersal limited, ectothermic and largely insectivorous. (Changes in grass structure can affect temperature regulation - the difference between tall and short tussocks can be 20°C.) Short grass may also expose reptiles to higher rates of predation.

Reptile sampling occurred in autumn and spring in 2010. Concrete roof tiles were used to help identify reptiles by providing temporary habitat which is easier to search. 1,905 tiles were placed, with 15 placed per plot. During the course of the



study each tile was turned eight times, four in autumn and four in spring, to see what was sheltering underneath. A grand total of 15,000 tiles were turned, with over 700 reptiles from 19 species seen. "It's labourintensive but you generally get good results, except for the 10 brown snakes which scared the crap out of me!"

### Analysis, results and management implications

From this data Brett had sufficient records to model the habitat requirements of 6 species:





Eastern three-toe earless skink

Common dwarf skink

Delicate skink







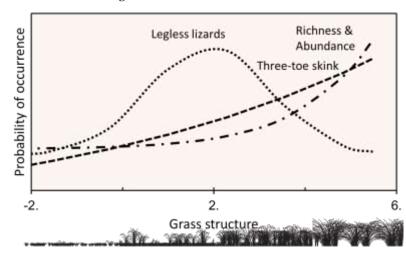
Boulenger's skink

Olive legless lizard

Striped legless lizard

Brett looked to see how common these species were against the grass structures.

Legless lizards behaved as we would expect, utilising habitats with a moderate grass structure. The three-toed skink benefited from a really dense grass structure. The abundance of reptiles and the number of species of reptiles also increased as grass structure increased.



Key results included no single grazing level supported all species and no reptiles benefited from high grazing. Conservation management implications include limiting high grazing events and creating mosaics of moderate and high grass structure.

#### Bird surveys

'Birds of a feather flock together: using trait-groups to understand the effect of macropod grazing on bird communities in grassy habitats' was Brett's second paper published.

# **B**iologically





In good humour!

# Reptile

## Decendent

Birds are a very diverse group with over 200 species recorded in the ACT. They occupy a variety of niches, their ecology is well known and many species are influenced by grazing.

Brett's methodology for this section of the study was to break the bird species up into the three main feeding groups.

<u>Aerial insectivores</u>: forage above a grass layer, and species included the Welcome Swallow, which is often seen flying above ovals in Canberra;

<u>Ground foraging</u>: forage in the grass layer, examples included galahs and cockatoos;

<u>Ground nesting</u>: use grass to provide cover for nests, and themselves, from predators, e.g. quails and the pipit.

#### Aerial insectivore Food

Ground-foraging Forage efficiency Ground-nesting Predation risk



## Analysis, results and management implications

As the grass structure increased there were more aerial insectivore species, including:



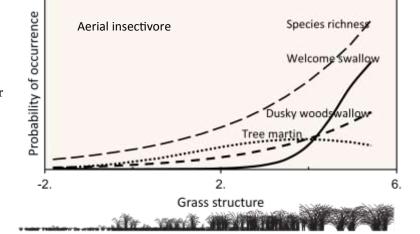




Dusky woodswallow

Tree martin

Nelcome swallow





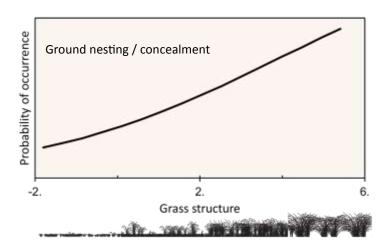


Bird surveys were conducted at all the same plots used for the reptile study. At 127 plots, eight bird surveys were done with two in each season. During a 10 minute point count all birds sightings were recorded, with foraging behaviour also recorded (ie foraging on the ground, in a shrub or in a tree). 102 birds were seen, of which 68 species were aerial insectivore, ground foraging or ground nesting. Analysing these records proved tricky in certain situations because many records of birds did not actually include them using the grassy layer: for example a galah may have been in a tree and not using the grass layer. "In these instances we were not interested in tree or shrub use, so we restricted analysis to birds seen using the grassy layer. After reviewing the data we had enough records of 24 common species to model habitat requirements." Brett said.



Australasian pipit

The australasian pipit, in the ground nesting/ concealment group, liked dense grass structures as expected.



The next group of large ground foraging birds (> 100g) contained the most commonly found birds in Canberra. These showed a contrast response, benefiting from really low grass structure resulting from high kangaroo grazing.



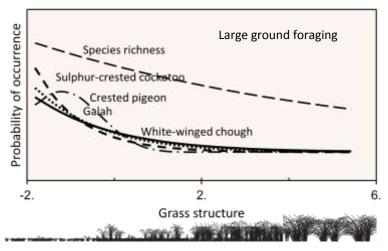






White-winged chough

Suphur-crested cockatoo



The small ground foraging species showed a general preference for high kangaroo grazing grass structure.

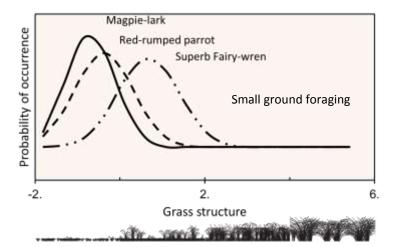






Magpie-lark

Red-rumped parrot Superb fairy-wren



Birds showed a larger range of preferences for grass structure compared to reptiles but again, not one level of grazing benefited all species. If you don't manage your grazing you basically benefit cockatoos and galahs.

### The Striped Legless Lizard

Brett's next paper was on one of his favourite species, 'Habitat preference of the Striped Legless Lizard, Delma impar: implications

of grazing by native herbivores and livestock for conservation of grassland biota.'

The Striped Legless Lizard is listed as vulnerable because it has lost 99% of its natural habitat, being a grasslands adapted species. "The ACT Government undertook two years of data collection across more sites, allowing me to ask a lot more questions. I was interested to see if this lizard was pre-empted by different scales over several metres, over tens of metres and over whole reserves. In total the dataset covered six reserves across the ACT."

First question: at a broad scale, do the number of kangaroos affect the species?

Second: does the size of the grassland area affect occurrence?

Third: at a moderate scale, are they selecting habitat based on the quality of the pasture, i.e. natural temperate, native pasture or exotic pasture?

The lizard occupies very small home ranges and thus the grass structure immediately around a tile where an animal is captured may tell us something about the habitat it prefers. Again, an important point here is that a tile is not a permanent habitat. They are not like logs within which they can create new habitat, they are only temporarily occupied, so sufficient habitat surrounding the tile needs to be available.

Grass complexity: really short grass lawn had low complexity, a really dense and uniformly thick grass structure had moderate complexity, and a mixture of short and tall grass tussocks was given the highest complexity score.

Tiles were searched for reptiles in 2012 and 2013 at 26 sites, 5-7 times in each year. Searches were conducted from October to December under a range of conditions. There were a total of 11,280 tile turns!! and *Delma impar* was encountered 129 times.

#### Analysis, results and management implications

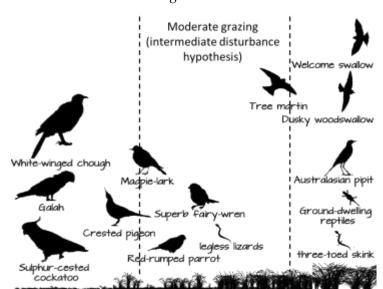
The first thing Brett looked at was kangaroo density and does the number of kangaroos found say anything about the number of lizards found. And yes, he found a significant relationship between kangaroo density and *Delma impar*. As the number of kangaroos increased the population of legless lizards crashed: at 5.5 kangaroos per hectare almost no legless lizards could be found.

The size of the grassland area didn't seem to make a difference to where the lizard could be found, suggesting even small grasslands can provide important habitat. The grassland community, whether it was native or exotic pasture, didn't seem to matter either. Non-grass structure or bare ground had no bearing. What did matter was grass complexity. The mixture of tall and short grasses increased chances of finding *Delma impar* and the lizard showed a preference for native grasses when it was complex and exotic grasses when it was more uniform.

Small and degraded grasslands still have conservation value for this species, and kangaroo numbers need to be managed. However some level of grazing is needed to create complex grass structures in which this lizard can survive.

#### **Synthesis**

Grazing has a strong influence on species assemblage and changes in grassland structure has a very strong effect on reptiles and birds in this part of the world. No one level of grazing will support all species and we need to manage grazer (ie kangaroo) numbers. We will need to create a mix of grass structure across reserves.





#### **Future research**

The use of fire may be a very interesting tool to

create that mosaic of structures to help move kangaroos across the landscape.

Further work on the grazing effect on the invertebrate community would be helpful, as would research into the mechanisms behind grazing response.

Brett followed-up his main presentation with a short talk on the translocation of the Striped Legless Lizard from Canberra to a property near Bredbo in NSW. The following newspaper article provides a good overview of the initiative that Brett has been involved with.

# The party's over for the Striped Legless Lizard in Australia's capital



By Oliver Milman, theguardian - Endangered species, 14 October '15 [Edited]

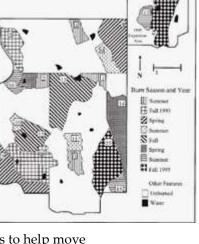
One of the last populations in Australia of this nearextinct reptile is being

moved from Canberra to a property 75km south in a do-or-die operation.

On the frontline of saving a rare Australian reptile species near Canberra, the essential requirements are a large number of clay tiles, some quick reflexes and the hope that you haven't accidentally grasped at one of the world's most venomous snakes.

An unremarkable looking plot of land opposite Canberra's Exhibition Park is where conservationists are attempting the rescue of the reptile, the vulnerable Striped Legless Lizard, *Delma impar*.

In many ways, the razing of this land is emblematic of how Australia has managed to get itself the worst species extinction record in the world, almost before the country really understood how it got into this position.



The grassland site, next to the Federal Highway that links Canberra to Sydney, is being flattened to create a caravan park and tourist accommodation for up to 480 people. The developer, FreeSpirit, has to find an area of compensatory land elsewhere to "offset" the loss of the grassland.

Unfortunately the denizens of the grassland are unaware their home is set to be torn asunder and only the intervention of a conservation group, Bush Heritage Australia, is saving 200 striped legless lizards, one of the last populations of the species left in the country. South-east Australia has lost 99% of its grasslands since Europeans arrived and decided that houses, cattle and sheep were suited for these treeless, largely unloved areas.

"Protecting grasslands is a hard thing to sell to people – they aren't particularly valued," says Peter Saunders, a Bush Heritage landscape manager who spends much of his time in such environments under a wide-brimmed hat.

"People see them as a place to walk their dog or maybe graze some sheep. But they are incredibly valuable for a large number of plants and a surprising number of reptiles and insects. Even fungus. Did you know Australia has two-thirds of the world's fungus species?"

The protection of fungus is unlikely to inspire the hordes to march on to nearby parliament house and, at first glance, those with an aversion to snakes would also doom the Striped Legless Lizard.



Above: Brett Howland, academic and Bush Heritage contractor, left, and Peter Saunders, a Bush Heritage landscape manager. Photo: Annette Ruzicka/Bush Heritage Australia

The species has other peculiarities. Most of its body is made up of tail – unlike snakes that have very short tails – which can detach from its body in sections if it needs to flee quickly. The tail continues to wriggle, distracting the predator. And, oddly, the legless lizard squeaks when handled, much like a startled mouse.

To capture these legless lizards – the name comes from legs that disappeared through evolution leaving just a scaly protrusion – Bush Heritage has purchased roof tiles in bulk.

About 800 have been strewn across the area for the proposed caravan park. The idea is simple but effective. Reptiles like to press themselves against heated surfaces to get warm. As the sun heats the tiles, legless lizards will wriggle underneath them.

The tiles are then flipped over and the catcher quickly presses his or her palm over the legless lizard. The complication is that brown snakes, one of the world's most venomous, can also be under the tiles and, in a split second, can look a little like a legless lizard.

"It looks a bit like a snake if you haven't seen one before," said Brett Howland, an academic and Bush Heritage contractor. "I pick up the tiles sometimes and see snakes and that throws me backwards. There's probably something in our evolution that means we instinctively fear snakes.

"But when you see a snake next to a legless lizard you'll see they look quite different. Their behaviour is different, too. A legless lizard is very placid but if that was a brown snake" – Howard points to a recently flipped tile – "it would have looked towards me and been quite aggressive. Not all snakes are like that, of course."

No legs means the lizard can move quickly through grasslands and is an instinctive burrower. When you hold one, it appears as if it is rearing its head to strike but it is, in fact, looking for somewhere to hide. They twist and wrap around your fingers like wire and, as I found out to my cost, can defecate silently and without warning.

Once grasslands are turned into grazing or cropping land, the species' cover is removed and predators such as magpies can pick them off. They cannot cross roads or paths. Almost casually, animals such as the legless lizard are being wiped out as land is seemingly improved by humans.

Once the legless lizards are caught – 31 so far – they are taken to the Australian National University to be weighed, measured and marked so that their progress can be checked. The longest can measure 30cm, and weight is about the 9g mark.

"If you find a legless lizard, it's a sign that the environment hasn't been disturbed too much," says Howland. "If you remove them, the ecosystem won't collapse but it's another cog in the wheel. We have a pretty terrible extinction record."

The striped legless lizards are being moved to Scottsdale, a former farming property 75km south of Canberra. Bush Heritage bought the 1,328ha site in 2006 and has been busy revegetating its box woodlands and grasslands, and trying to drive out feral pigs, deer and rabbits.

This is the first species to be moved to the Scottsdale Reserve to save it. A fenced off area will be used to study the results. If the legless lizards survive a few years and successfully breed, the relocation will be hailed a triumph.

As US author Aldo Leopold put it: "We stand guard over works of art, but species representing the work of aeons are stolen from under our noses."

Saunders says it comes down to personal values.

"I don't want to contribute to the demise of a species and we can do a bit to prevent them becoming extinct," he says. "If this species wasn't moved in this way, it would become extinct. In a way it represents so many other species out there."



# Man finds giant goanna chilling on side of his NSW home

Yahoo7 News, 4 December '15

A NSW man got a lot more than he bargained for when he emerged from his shed to find a huge goanna chilling out in his backyard.



Eric Holland managed to keep his cool when he came across the Lace Monitor, which was estimated to be around 1.5 metres long, on his Thurgoona property in Albury, NSW.

"I was just doing a repair job in my shed when I opened the door and I saw this huge thing run across the ground and out of sight," Mr Holland told The Border-Mail.

Not long after, Mr Holland started to hear a banging noise coming from the side of his house and went out to investigate.

"When I went outside I saw him on the side of the house with his tail hitting the drain pipe," Mr Holland told the local newspaper. While some big city folk would have completely lost their mind at the sheer size of the scaly creature, Mr Holland pulled out his phone to take a photo of the unexpected houseguest.

"It was a big surprise really," said Mr Holland who has lived in the area for 18 years.

"I sometimes get blue tongues and lizards in the backyard but never anything quite like this." While many have been shocked by the image,

which has gone viral, others were quick to share their own encounters with large goannas to Facebook.

The Lace Monitor can weigh up to 20 kilograms and grow to around two metres long.

The NSW Office of Environment and Heritage said it would not be unusual for a Lace Monitor to be found in the area around Albury.

And speaking of Laceys, our very own member in Wagga, veterinarian Janet Wild, is presently incubating 5 Lace Monitor eggs.

"I removed them during a post mortem on a recently run-over Lace Monitor that a neighbour called me to. They appear viable and well-developed in utero, but I don't know whether they will hatch. I'm giving them a chance anyway."

Ed. Look forward to some impending news!



## The Australian & International Scene

# Reptile sightings in our region

Matthew Higgins, Canberra historian and bushwalker, updates us on his recent sightings!

"Don Fletcher (from ACT Government's Conservation Research, Environment and Planning Directorate) and I have been continuing our monitoring of Rosenberg's Monitors on Mt Ainslie, specifically to try to get images of breeding activity (hatching of young monitors at termite mounds) during the spring. Don has retrieved the remote automatic cameras. There were no hatching images but there are a number of images of adult Rosenberg's at two of the mounds. The monitor shown is about a metre in length, judging by the size of the mound. We'll be reinstalling the cameras in late summer in an endeavour to capture images of egg-laying in the mounds.



As the Rosenberg's Monitor is relatively rare in the ACT (they are listed as 'Vulnerable' in NSW), these images are an exciting development in our knowledge of these impressive and beautiful creatures, almost in the heart of Australia's national capital."

And Matthew on several other recent excursions -

"I like to visit the rugged Queanbeyan River gorge south of Googong. It is an inspiring area, with dramatic rocky slopes and joyful rapids, and flood debris metres above the water level hinting at the river's power. It is also a good place for birds, wildflowers and of course reptiles. Last year I saw Rosenberg's Monitors here (hence the short video on ACTHA's website). I always see water dragons at some

point, either in the gorge or on Burra Creek near London Bridge, and today's was unexpected as we - the dragon and me - were both in a very rugged part of



the gorge and equally got a shock from each other's appearance! But the dragon was obliging and allowed me to remain only two metres away and get nice close up shots of his/her face. By the way, wombats are also numerous on the flats along Burra Creek and can be seen in daytime in the winter when they stay out longer to feed. So, a great part of the world, all round."

"Great walk on Mt Gingera in the Brindabella's today, wildflowers, blue skies, birds, and heaps of bogong moths. Also two copperheads, one of which was eating a skink. It was on the sphagnum moss swamp



at Brumby Flat just below the summit on the NSW side, and paid me absolutely no attention. The soft sphagnum probably meant it couldn't sense my movements so I was able to watch from only a couple of metres away. Eventually the snake started to make its way toward me in its search for more food so I reluctantly retreated, yet with no adverse behaviour by the snake. The sighting gave me a wonderful view of the copper-coloured head which I've not been able to see before."

#### Seen At Perisher, October '15

Image taken by Marg Peachey.

ACTHA expert: "It is either a Mountain Dragon or Jacky Dragon. Given the location and the slight brown colouring I would opt for the former. The Mountain Dragon also has spikes along the side of the tail which are not that well defined in the photo. On balance of probabilities I am prepared to go with Mountain Dragon. These dragons can also be

confused with the Nobbi Dragon, but location is incorrect. When was the photo taken and what size was it? It may be a juvenile."





## Above: Spotted in Bredbo, NSW

Sent in by Peter Saunders

"Things you don't see everyday at work! One reasonably sized eastern Brown Snake killing a Tiger Snake (brown form). Spotted by Brett Peden, this brown seems to have injected venom into the tiger and in the half an hour or so that we watched it, it constricted the tiger whilst it died, all the time holding the tiger's head in its mouth."

*ACTHA expert comments*:

"I am not convinced it is a Tiger Snake.

Declaring it a 'brown form'?? It looks more like another brown snake to me, a species with which we have evidence they certainly eat if they can. I assume they would eat tiger snakes as well but I have not seen this."

### Lightening strikes twice!

Margaret Ning writes about images at right.

"Many moons ago our pet bluey went down a grate into the storm water pipes, climbed up a (rectangular) downpipe into our guttering, and spent some time in our roof before we realised it wasn't mice in the roof, but our missing bluey.

Well, it's happened again! This was a very thirsty and hungry juvenile bluey!! Oh, and did I mention very lucky!!??"

Matthew Higgins, Canberra historian and bushwalker, spots something unusual

"On 12 October 2015 on Mt Ainslie we heard a strong kookaburra alarm/warning call. We followed it and found the bird swooping at the ground. Thinking it might be a snake or monitor we looked closer only to find a bluetongue lizard was the bird's focus. On looking

closely at the lizard we noticed a fresh wound on its side (*image at right*) presumably made by the kooka. We also saw that the kooka had its nest in a hollow directly above (the bird flew into and out of it while we were there). We were surprised that a



kookaburra would object so strongly to a bluetongue in this way; we assume the bird was not preying on the lizard as it would seem to be too big to carry to the nest."

Are the blue-tongue lizards in this pic fighting or mating? asks a visitor to ACTHA's website.







# Public servants versus snakes: Spring brings out slithering reptiles, bureaucrats fight back with signs

By Phillip Thomson, The Canberra Times, 14 October '15



Left: There are signs public servants in a semi-rural part of Canberra are ready for the hot months. Literally.

*Below:* One snake photographed in the car park at Symonston last summer.



A large "beware of snakes" sign is greeting federal government employees as they go to work at the Therapeutic Goods Administration agency.

"The TGA building at Symonston is located in a semi-rural area," a TGA spokeswoman said, "and due to this location snakes are occasionally sighted in the area surrounding the building."

Last year what appeared to be a large brown snake was spotted making its way across the car park.

"When a snake sighting has occurred, as part of our preventive approach to workplace health and safety, staff are informed and signage is placed around the building to also warn visitors to the site to be aware," the spokeswoman said.

"Snake catchers have been utilised in previous years. No snake-related injuries have been sustained by staff or visitors."

For the TGA, there was an even bigger threat at the Symonston site which was abundant with native wildlife.

"It should be noted that our main concern are the kangaroos which come down onto the road leading out of the TGA at dusk," the spokeswoman said. <u>Canberrans have been posting a number of photos of snakes to social media since the arrival of warmer weather.</u>

One photo of a large brown snake was taken at Stromlo Forest Park in recent weeks and posted to the Canberra Off Road Cyclists Facebook page.

It prompted a flurry of advice from mountain bikers.

One person said: "Learn to bunny-hop is the best recommendation. Pedals flat, wheels off the ground; the snake will most likely strike your tyres, if it strikes at all - you may have a flat tyre [Ed. ???], but you'll be a few meters away when you have to stop..." and "always better to be first - they attack the second rider" [Ed. ??!].

Another said: "Riding slower through the lower sections in particular will give them a chance to move on. Those grassy areas have limited sunning spots, so they end up on the track. They're also currently seeking a mate. Good times."

Territory and Municipal Services says a snake's natural habitat was in the open space and bushland in the ACT.

As a general rule a snake in a backyard was probably making its way through a suburb. The best way to discourage the reptiles from entering a garden was to keep lawns and gardens maintained, ensure pet food and water bowls were not accessible, and to keep compost heaps and items in sheds off the ground.

An hour was often long enough for a snake to move on.

If a snake slithered inside a house, people could call Access Canberra on 13 22 81.

#### Seen...

Outside this Editor's house in Carlile St, Evatt, a fortnight ago. We face the Ginninderra Creek Reserve. Images by Lawrence De Costa.



# Mysterious photo appears to show black snake eating its way out of brown snake

The Sydney Morning Herald, 4 Nov 2015

We've heard of the predator becoming the prey, but perhaps not like this.

A remarkable photo has emerged from Griffith in southern New South Wales that depicts two dead snakes entangled; one brown, one black.

Look a little closer, though, and the scenario is less than clear-cut, raising questions that remain unanswered.



Image: Facebook

Has the brown snake swallowed the black snake? Has the black snake then bitten its way out? Is that even possible?

Just what has gone on here is a mystery to Geoff Mitchell, the passer-by who snapped the mysterious photo after spotting the dead snakes on a roadside.

"I saw a tangle of snakes and got up to have a look, grabbed my camera and took a picture," he told radio 3AW.

"I've thought about it quite a lot, I had to research it. It seems quite common for brown snakes to eat black snakes but I have seen none where one snake has punched a hole through another."

According to 3AW, the picture has been forwarded to Queensland's Australia Zoo, which was similarly bewildered.

"Wow! This is certainly unusual and we have not seen this before. We can't imagine a black snake climbing into another snake but this entire situation is very strange. We would still suggest that the brown one was eating the black, but we will never know for sure," the zoo replied.

### Nella's ordeal at Mareeba,

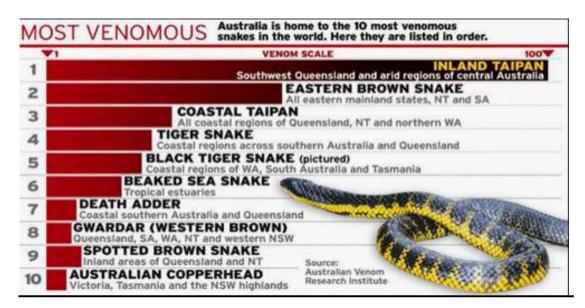
By MaxO'Sullivan, The Murrumbidgee Naturalist, November 2015, Issue No. 232 [Edited]

"I was house-sitting for friends just outside Yungaburra on the Atherton Tableland and had planned a number of outings for Nella and myself, including a trip through Mareeba with an overnight stay at Kingfisher Park – a wonderful bird lodge at Julatten.

My main purpose for the visit was to try to relocate the Black-throated Finches that I had seen on the Pandanas Trail just a few days before Nella's arrival. At the very spot where I had seen them before, there was a large log across the path and I, with Nella close behind, stepped over it and was aware of movement around my feet. I'm not sure if I actually trod on it or just disturbed it and it flared back and was writhing between Nella's legs. All I can still picture is Nella with this large snake all around her and she jumping trying to get away from it. I was also conscious of the snake coming towards me but fortunately it shot off into the bush. All this took maybe 5 long seconds but seemed to be minutes before it went off.

Nella had to be persuaded not to go looking for it before looking down at her trouser leg and seeing blood. She pulled up her pant's leg and there it was, the tell-tale sign of double marks about a centimetre apart. I made her sit down immediately and went to get help. Again all logic goes out the window in such times as I had my mobile with me but it had no signal, however, I could have dialed 000 for help. Fortunately, not 2 minutes later as I was heading off back to the Wetlands Centre to get help a young guy came along who had his mobile with full signal – there is some merit in having Telstra in isolated places like that!

The guy got onto the management at the Centre and they were out within 10 minutes with First Aid Kit containing a snake bandage. In the meantime his wife had got onto the ambulance and also got advice as to what to do until it arrived. Nella in the meantime had removed her bra and had used that as a tourniquet – the bite was on her right calf so she tied it just below her knee. She was feeling fine until not long after the ambulance men



arrived when she started feeling nauseous and had shimmering eyesight.

She was taken to Mareeba Hospital where they administered a polyvalent covering all brown snakes and put her on an adrenalin drip. But as they had no Pathology Department at the hospital, they arranged for the Rescue Helicopter to come from Cairns and she was flown down by 2pm where they established that the bite, or rather bites, were from the very venomous Coastal Taipan - Australia's third most deadly snake! The worst thing about this species is that it has long needle-like fangs that can penetrate even the thickest material. I was told by a local later that a man was bitten by one through his rubber boots and received enough venom to require hospitalisation. The taipan bites several times in quick succession in order to immediately demobilise its prey.

King Brown Snakes, on the other hand, have very stunted fangs and often don't affect people when bitten even though their venom is more toxic. However, there are more fatalities from King Browns than taipans because they are far more widespread throughout Australia.

Nella is now almost fully recovered apart from the area of the bite. She suffered badly from double vision for a week or more and still gets very tired eyes by afternoon. The toxin seemed to have affected her optic nerves more than anything else and there was a period on the first day when she was unable to open her eyes unless they were forced open by the medical staff.

Not long after Nella's drama, there was a report of a guy in Townsville being bitten by a snake and he died of a heart attack before help arrived. Whether it was brought on by the bite or shock was never established nor was the species of snake.

All was an extremely sober lesson about being prepared at all times – as if my experience last year at Round Hill wasn't enough but we in the bush are very casual when encountering snakes. We avoid them at all costs and keep a safe distance but when you encounter one as we did we didn't have time to do anything except suffer the consequences of being too close."

# Frog loving french town constructs frog tunnels to prevent roadkill

By John Virata, US Reptiles Magazine, 28 October '15

The French eat about 80 million frogs every year in stews, as well as frog legs. A French council in Vern-Sur-Seiche, Brittany, have done something of a different sort in constructing frog tunnels along a road where there were high mortality rates for frogs that try to cross the road to reach breeding ponds.

The council spent the equivalent of about US\$72,000 to construct five passages under the D86 road to prevent the frogs from becoming roadkill. More than 4,000 vehicles each day use the road which separates the frogs from their breeding ponds.



Above: The froggy ducts are designed to help frogs cross the road. Image: La Parvole volunteer group.

Below: It is estimated that 1,200 frogs are killed trying to cross this road in France. Image: La Parvole volunteer group.



Prior to the construction of the 'froggyducts' volunteers with the La Parvole Volunteer Group would carry the frogs across the road, catching them with tarps, counting them and placing them into buckets for their short journey across the asphalt. It was estimated that about 1,200 frogs and toads were killed along the stretch of road every year until the construction of the tunnels.

The French don't eat French frogs though as frog hunting has been banned since 1980 due to over harvesting. The French get their frogs from Asia.

The construction of wildlife corridors have had mixed success, at least in North America. A tiger salamander crossing in California, constructed in 2011, has been fairly successful in helping the amphibians cross the road. A study of turtle ecopassages in Ontario, Canada, found that turtles hardly used the passages and were still getting killed on the roads, and the animals that were using the passages regularly were ducks and geese. They concluded that when these corridors are built, the target species must be kept in mind during construction to enhance the chances that the species will use it.



### A Tour of Canberra Nature Map

By Geoff Robertson

Canberra Nature Map (CNM) has been going only a short time but it is quickly gaining acceleration and while there are a large number of volunteers in the project, to date it has largely been dependent on the drive, enthusiasm and amazing skill of Aaron Clausen. Canberra Nature Map was awarded the People's Choice Award at the 2015 ACT Landcare Awards. This article aims to provide a tour of CNM, and, if you are not involved already, awaken your enthusiasm and participation.

The initial purpose of CNM was to identify populations of rare native plants in the Australian Capital Territory (ACT) and in this it has been extremely successful, identifying new populations of plants thought to be rare or

extinct in the ACT. CNM has lent itself to other purposes, such as mapping the more common native plants and weeds and the inclusion of plant lists for reserves and other locations of interest. It has been spilling over the ACT border, and the current CNM now encompasses a distance of 300kms from the Canberra Post Office. My own contribution has been associated with the development of the reptile and frog module which is allowing us to discover the numbers and location of each herpetofauna species.

#### Begin without logging in

You can explore CNM - there is much to see and learn even if you don't register, unlike many sites. To begin, simply type in 'Canberra Nature Map' in your web browser and click on 'Canberra Nature Map Home Page'. The home page presents many exciting options and news

items, possibly a little bewildering to a new user.

I would suggest that you look for a favourite category under either 'Plants and fungi', 'Butterflies' or 'Reptiles and frogs'. Since I am more closely associated with the latter and it is less bewildering, I would suggest that you click on 'Lizards' within 'Reptiles and frogs', but the choice is yours. Bear in mind the 'Reptiles and frogs' section is in a developmental stage. The 'Butterflies' segment is a recent addition and further down the track it is planned to add birds and other groups of insects.

The lizard page provides a list of the lizard records. By toggling on the icon to the left of the 'Quick Search' (top right hand side) you will either see a list of records for lizards, or the photos attached to those records.

To view individual species, click on 'Species' in the bar at the top of the page. It gives you the option of 'Plants...', 'Reptiles...', and Butterflies' - click on 'Reptiles...'. A page opens showing each species in this category, for which you can scroll down. However, if you want to just look at lizards, click on 'Lizards' in the 'Browse Reptiles and Frogs' menu on the right hand side.

This provides a list of lizards showing scientific name, common name, and three photos of each species found in the region.

If you click on 'Acritoscincus platynotum' (Red Throated Skink) you will see a list of records and an image of the skink. Again, if you toggle on the icon to the left of the 'Quick Search', you can see the list of records or the photos that have been submitted. The blank photos are records associated with the historical Canberra Atlas that have been added. I am currently developing some notes that should help people look at some key identifying features of each species. If you wanted to follow the addition of new records for this species, you can enter your email address. The page also shows the locations at which the skink has been found.

You can click on the 'View species distribution' to see a map showing the records. You can Zoom In or Out, and look at individual records within the map. This provides a very powerful feature.

#### The Nature Park button

A fantastic feature of CNM is the 'Nature Park' button, found at the top of each page. This allows the user to look at Nature Parks within the ACT, or 'Other' districts. You can look at your favourite location. With the Canberra Nature Park, many polygons have been identified which are not strictly reserves, such as the ANU, the STEP site, etc. The 'Other' districts identifies each Canberra suburb or locations within NSW and some in Victoria. For example, if I click on 'Winifred' in NSW I can see the records that have been listed there. For the most part these are records that I have listed for 'Garuwanga', our former property near Nimmitabel. If I click on the map I can see a map of all the species that have been recorded and can Zoom In or Out and can click on individual records. The reader might think of how these tools might be used to pursue the localities that interest him or her most.

### The 'Community' button

The 'Community' button shows three categories of volunteers: Local experts, Category experts, and Site administrators. A Local expert can moderate sightings, thus verifying each record and its plant or fauna identification, within their sites. Local experts may take the initiative to ensure that certain locations have a species list for example. One does not need to be a local expert to ensure that their favourite location has a plant and fauna listing. For example, I am taking an interest in the Ngunnawal Hill Reserve (see map for Ngunnawal) and I have started to compile a list of native plants, weeds and reptiles (if I see them) using CNM.

#### Reporting a sighting

To report a sighting, you need to register as a user. Registration is quick and easy.

To report a sighting you need a photo which has the location and date imbedded. Most digital cameras include the location to be recorded. If you have some exciting sightings, but not the imbedded location, talk to me as we need to use a-work-around.

To complete the form you need to fill in a few boxes which is straightforward enough. You will be asked within categories for the species name. You can record 'don't know' or have a go. By referring to the list, of say lizards, you may be able to identify (or attempt to identify) the species.

You may then submit the species. It goes on the unidentified list until verified by one of our panel of experts. You receive an email when this occurs.

#### Tracking your records

For registered users you can at any time look at your records and even edit them. You can also look at your map which will show your records. You can also include information about yourself that others may see. These are great facilities.

#### The App

You may download the app on your iPhone - an Android App should be available by Christmas. The iPhone App allows you to Record a sighting in the field. It also allows you, under 'Plants' to look up species information (especially photos) and under 'Reserves' to look up the list Canberra Reserves and to see what plants and animals have been recorded there.

If you come across a plant or animal, you can take out your iPhone and tap the 'Add sighting button'. It gives you the choice of using 'Camera' or 'Gallery'. Clicking on 'Camera' opens your camera and you can take a photo, and it allows you to take several photos of your selected plant or reptile if you wish. It then asks you to complete a few simple self-explanatory boxes

and to give the scientific name, which you may enter from the appropriate category if you know it (you can also enter don't know). Alternatively, you can just use your camera to take photos and use the App later to upload from the 'Gallery' mode. You can take as many sightings as you like and our advice is to upload when you have internet access (if you have limited upload/download capacity). However, updating downloads in the field, because of the way the App is designed, uses minimum capacity.

Obviously the App has a more limited capacity than the web, but is such a useful tool. It also allows you to take photos and record sightings for later uploading, if your phone is out of range.

#### New tools

New tools are being added but that's for another time.

#### **Participating**

There are many ways people can participate. By playing with the map you will see areas where records may be added. Jump in, learn and have a go. If you want to ask any questions or want assistance, please do not hesitate to contact me (geoffrobertson@iprimus.com.au or 6241 4065). If you have records of historic sightings, I would like to know.



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