Landcare UpHunter

Spring 2019

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Fascinating Frogs

There is nothing I love more than going for a gentle stroll in the bush on a warm Spring evening. When the sun is casting long shadows, the birds are darting about in the dimming light and the hum of the busy world starts to subside. It was on these evening walks that I realised how remarkably different the sounds of the bush are as night falls.

The first sound that piqued my interest was a relentless “tock....tock....tock”. It sounded like a bird tapping its beak on timber, or even an endless rally between Roger Federer and Rafael Nadal. It turns out it was neither. It was an inconspicuous brown frog with racing stripes down its back, which I later discovered is called a Striped Marsh Frog (or Limnodynastes peronii to the initiated). They are nearly impossible to spot amongst the damp leaf litter they call home but their relentless tock can be heard a 100 metres away.

I was hooked, I wanted to know more, were the other strange sounds I could hear in the night frogs too? It sounded like there were hundreds, maybe even thousands, of different noises out in the darkness. Within minutes I had the frog ID app on my phone and I was submitting recordings of all the noises to the Australian Museum. They have a team of experts who want to know where frogs are and how they are responding to a changing environment—I wanted to know what frogs live in the local creek and it turns out there are several frog species and lots of insects that I thought at first were frogs too!

The sounds I could hear were the male frogs, calling out to females when the conditions were just right for breeding. Each of the 240 native frog species in Australia has its own unique call—meaning to the trained ear, you can identify frog species from the call alone.

Frogs are amphibians, meaning they typically have an aquatic gill-breathing larval stage (tadpole) followed by a terrestrial lung-breathing stage (frog)….and they don’t have teeth!

The more I listened and observed frogs the more fascinated I became, watching their vocal sac swell up like a balloon, sometimes to the point that its nearly as large as the frog itself. Or seeing a frog eat for the first time, watching their eyeballs close and almost turn inside out, pushing down on its mouth to squeeze its food into its throat. Frogs like insects, worms and all manner of invertebrates.

Unfortunately, I learnt it’s not all good news for frogs, with a rapidly changing environment, disease, urbanisation and climate change all taking their toll on these fascinating creatures. Recent reports suggest as much as 42% of global amphibian species are under threat with extinction. The Green and Golden Bell Frog (Littoria aurea) in the Hunter Region is a stark reminder—once common along the east coast from north eastern Victoria to north eastern New South Wales, it has declined severely largely due to the amphibian chytrid fungus (affects respiration and nervous system) and is now only known in small populations throughout its range.

There are as many as 84 frog species in NSW and with the variety of ecosystems in the Hunter Region, there is considerable frog diversity. The herpetology team at the Australian Museum led by Dr Jodi Rowley need your help to record them all—and regularly. The more data they can collect on frogs, where they are, when they are breeding, the better they can understand how they respond to a changing environment. My continuing interest and knowledge of frogs has now led to an involvement in co-ordinating FrogID.

They say the best time to plant a tree was yesterday and the same goes for recording our precious frogs. The next best for frog recording is **FrogID Week** from the **8th—17th of November 2019**. All you need to do is download the app on your smartphone and register with the project before heading to a wetland area, maybe a farm dam, creek or National Park that has water, then start recording. There are a bunch of great videos on the FrogID website to step you through the process—just go to www.frogid.net.au.

So get on board, start recording and help save Australia’s frogs!

Adam Woods

Photos:
Jodi Rowley
Australian Museum

Eastern banjo frog
(limnodynastes dumerilii)

Graceful tree frog
(littoria gracilenta)

Southern barred frog
(myxophyes balbus)

Devil Ark Colours

Since DevilArk was first opened at Tomalla in 2011 as a conservation breeding centre for the Tasmanian Devil, local schools in the Shire have been very supportive of the project to save this iconic Australian marsupial, officially listed as a Threatened Species.

Curriculum learning activities on the history of Tasmanian Devils, their behaviours, their place in our environment and health issues threatening their survival as a breed continue to be taught in schools. Some students have organised fundraising events e.g. a two day 35km horse trek with their fathers' in the Tomalla tops area, raising thousands of dollars for DevilArk.

Where practicable, DevilArk keepers have visited schools to talk with students often accompanied by a young devil joey or two.

DevilArk recently held a colouring competition for primary children aged 5-8 years who attend schools in the Upper Hunter Shire. School staff were provided with a standard 'colouring-in' drawing of the Tasmanian Devil for students who wanted to participate.

Over 120 entries were received. As part of the competition all entries were publicly displayed in Coles in Scone for two weeks.

Our competition judge was local artist Teresa Byrne, known for her love of the environment and its animals and nature. Teresa was delighted with the variety of ideas students used to express colour, design and background on their Tasmanian Devil entries.

Prize winners included students from Aberdeen, Blandford, Murrurundi, Ellerston, Scone Public and St. Mary's (Scone) schools.

As DevilArk Ambassador for the Hunter region I was lucky enough to visit the schools to talk with students and present the prizes. From small, two classroom rural schools to large urban school assembly halls, students and staff were all interested in devils.

My thanks to the school Principals and staff who assisted with this event, to our judge…...and to all the students who participated.

You can find lots of devil information at www.aussiark.org.au

Ruth Hardy

Photo above: Murrundi Public School
Photo to right: Aberdeen Public School

Devil Did You Know

The Tasmanian Devil is the world's largest surviving carnivorous marsupial. It once lived in the wild on the Australian mainland.

They are nocturnal, meaning they do like to sleep a lot during the day and then be more active from dusk to dawn.

During the day devils like to find shelter under stones, in caves, under bushes, in old wombat caves or in log hollows.

Like other marsupials, a Devil stores extra fat in its tail so it has more food it can draw on when other food gets scarce.

They might appear a bit awkward running or walking on the ground but joeys (young devils) can be great tree climbers.

Most devils have individual white markings on their chest—does this make it easier for Mum to recognise them as babies?

A woodland forest or sclerophyll forest (containing trees like eucalypt, wattle or banksia) are their preferred places to live.

DevilArk is the largest mainland breeding centre of Tasmanian devils with over 150 there, housed in 13 free-range enclosures.

Since 1996 the wild population of devils in Tasmania has reduced by about 90%, mainly due to Devil Facial Tumour Disease.

Some of the DevilArk bred animals have been released in Tasmania, in a disease free, fenced off area in the Forestier Peninsula. They have gone on to successfully breed their own little joey babies.

It only takes 21 days from when they mate to when babies are born.

Mothers can raise four joeys at a time in their pouch (over four months). Once out of the pouch joeys can 'hitch a ride' on their Mum's back.

Just like a lot of us, Devils like wading in water and basking in the sun.

When they run they can reach a speed of up to 15 kilometres an hour.

Adult males measure up to 65cms. from head to tail, females to 55cms.

When they are feeding with other devils they can be very noisy!

They use their long whiskers and great sense of smell to locate food.

Did you know that their front legs are longer than their back legs?

Ruth Hardy

Celebrating 30 years of Landcare

Our country has a long history over thousands of years of individuals and their communities applying positive land management methods across the continent. Changes in population, culture and industry have more recently brought major challenges to us all in how we protect, conserve, improve our land and waterways and seek to provide food security now and for future generations.

As part of meeting these challenges the 'Landcare' movement officially began in 1986, with the then Victorian government funding a Land Care support program for volunteer groups and individuals to address local environment issues. Within some three years Landcare established in Western Australia and the Northern Territory (1987) and New South Wales and South Australia (1988).

The National Landcare Facilitator project was established by the then Federal government in 1989, then the 'Decade of Landcare' was declared in 1990, to encourage broad community participation in Landcare activities and support funding across the country.

This year three decades of Landcare has been officially celebrated across Australia at local, regional, State and national levels.

Local groups have operated in the Shire since 1989 (contact details for Merriwa, Murrurundi and Scone Landcare are on page 4).

But what is Landcare? What does it mean to you? How can you and how do you contribute in our rapidly changing environment?

Fundamentally, Landcare is about local community action through activities of landholders, volunteers etc. putting their beliefs into practice, conserving and enhancing our local environments, providing a sustainable agriculture system and working with nature.

We all have opportunity to influence our landscape, in our own way—for local, regional or national community resilience outcomes.

Ruth Hardy




Resources & Funding *(If you have problems viewing links in Internet Explorer use Microsoft Edge or another browser.)*

George the Farmer—George the Farmer P/L teaches children about farming practices and careers in agriculture; how food and fibre is produced. Free paddock-to-plate videos, apps, curriculum-aligned educators resources at www.georgethefarmer.com.au

The Australian Farmer Annual—Volume 11, The Australian Farmer. A digital resource book focussing on primary industries for teachers and students. It takes a detailed look at farming and how Australian farmers can and do increase productivity and profitability. You can view this publication at www.theaustralianfarmer.com/digital-book

Honey bee biosecurity podcasts—NSW Dept. of Primary Industries (DPI). In this podcast Costa Georgiadis interviews a Technical Specialist at the NSW DPI. Topics include biosecurity issues for backyard beekeepers, their knowledge of 'bee food sources' in a local area and trees/plants needed to fill plant source gaps. Go to https://soundcloud.com/user-628942313/elizabeth-frost-podcast

Dairy podcasts—GippsDairy Australia series of podcasts focussing on sustainability & profitability in the dairy industry. Podcasts include Which dairy farming suits you best? Tips & tricks for better drying off, Marginal milk at soundcloud.com/user-522779431

Effect of fuel-reduction burning and logging on bats— Wiley Online Library (Australian Ecology) abstract by Law, Kathuria, Chidel, Brassil. A study which looks at the long-term effects of fuel-reduction burning and logging in dry-sclerophyll forests on bat populations in south-east Australia. The study found that bat records increased after low-intensity burning, particularly in unlogged forests. To view just go to https://onlinelibrary.wiley.com/doi/abs/10.1111/aec.12768

Online Environmental Tools Webinar—Nature Conservation Council (NCC) have produced three videos resulting from a training webinar this year which demonstrated how to use a host of websites useful for people working in an environmental field. Examples of websites covered are BioNet, SEED, Atlas of Living Australia, PlantNet, OEH Threatened Species, Six Maps, Google Earth. Also accessible are five training videos produced last year. Just go to https://vimeo.com/showcase/5239314

Funding

Small Environmental Grants Scheme—Wettenhall Environment Trust awards grants four times per year. To support Australian biodiversity projects that focus on one or more areas of community education; community capacity building (training); monitoring & recording data or research & science. Current round opens 18th September (November funding), then 11th December (February 2019 funding). For more information & to download the application form just go to https://wettenhall.org.au/grants/

Rural & Remote Scholarships—Rural Biz Training are offering two full fee scholarships in the Diploma of Agriculture for students living in a rural or remote area. For eligibility, guidelines and application go to www.ruralbiztraining.com.au or call Mel on 02 6884 8212. There are other education and training assistance options for rural communities that Rural Biz provide so check them out.

National Landcare Program: Smart Farms Small Grants, Round 3—Department of Agriculture (Australian Government) grants from $5,000 to $200,000 to support projects to increase farming, forestry and fishing communities awareness, knowledge, skills and capacity to adopt best practice sustainable agriculture. You can access background information, guidelines, application etc. at https://www.communitygrants.gov.au/grants/national-landcare-program-smart-farms-small-grants-round-3 and if necessary, call the community grants hub on 1800 020 283 (option 1) or email them at support@communitygrantshub.gov.au to ask questions.

Events for your Diary

Landcare UpHunter stall—farming, environment, Landcare, education resources, plants/herbs. Visit us at:

Bloom Markets—at Scone Public School, Liverpool St, Scone on Saturday 23rd of November from 3.00pm to 7.00pm

Other Events:

Gundy Farmers Dinner—6.30pm first Friday of every month at the Linga Longa Inn, Riley St. Gundy

Frog ID —8th to 17th of November. Details on downloading the app & to register go to www.frogid.net.au

National Pollinator Week—10th to 17th November. For participation & to find event information go to www.australianpollinatorweek.org.au

National Recycling Week 11th to 17th of November. Go to https://planetark.org/campaigns/rny.cfm

Ladies Day Out (for rural women) at Murrurundi on 19th of November & Merriwa on 21st of November from 8.45am to 3.00pm. Register at www.trybooking.com/eventlist/rrp

Low Stress Stock Handling Workshop 28th to 29th November in Scone, https://hunterlls.wufoo.com/forms/m7lvr2i1f2swaq/ to register.

Merriwa Landcare Group. Contact Jenny Lee on 0429 337 557

Murrurundi Landcare Group just Email Sandy@boydscreek.com.au

Pages River Warriors Working Bee Wilson Memorial Oval, Murrurundi 1st & 3rd Sunday monthly (morning) Email Sandy@boydscreek.com.au

Landcare UpHunter & Scone Landcare—refer details below

Landcare UpHunter

Scone Landcare

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Diet of the Red Fox

The European red fox (Vulpes vulpes) was first introduced to Australia in the nineteenth century and was then released into the wild in South Australia and southern Victoria for recreational hunting. It has since become widely distributed across most of the country.

The fox is a weed vector, distributing weeds across a region and can spread disease too.

In rural areas mountains, grasslands and forests provide good opportunity for it to dig deep underground, providing a cool place to sleep, store food and safely raise any pups.

Being an omnivore its diet can include a wide variety of food sources. Foxes have a very powerful sense of smell which is very useful in finding food for their mainly meat protein based diet which can include mammals, birds, rodents, insects, reptiles, frogs, eggs, worms, other invertebrates, fish, fungi, carrion and even fruit, vegetables and berries.

Its impacts on native species and livestock have been well studied in natural wilderness and agricultural areas where they occur. Red foxes are just as common in our urban environments as they are in non-urban areas. Little is known about their impact on native species that are clinging on to refuge in fragmented habitats across the urban landscape.

As part of a two year study by the Hawkesbury Institute for the Environment, the Royal Botanic Garden and the University of Sydney, the diet composition of red foxes in the Greater Sydney Region was examined across a gradient from urban areas to rural and natural areas. This involved a variety of land managers, Local Councils and volunteers collecting over 160 fox carcasses and 280 fox scats across the Greater Sydney Region.

The results have showed that more native mammals were consumed in non-urban areas than introduced mammals and the converse was found in urban areas. However, urban foxes still consumed a considerable proportion of native marsupials that were adapted to inhabiting urban areas, particularly ringtail possums (Pseudocheirus peregrinus).

Predation on declared Threatened Species was limited to a small number of long-nosed bandicoots (Perameles nasuta) consumed in the northern beaches area. Red foxes in urban areas also consumed more food scraps and more rubbish than non-urban foxes.

In semi-urban and agricultural areas across Western Sydney including the Hawkesbury region, the foxes were found to have primarily consumed introduced species such as European rabbits (Oryctolagus cuniculus) and house mice (Mus musculus).

Examining scats of red foxes, as well as stomach and intestinal contents gives a greater insight into their diet and predation on native Australian species in urban environments.

Fox scats are usually pointy at one end and full of fur, feathers, tiny bones and even seeds at the other. Urban fox scats can be lighter than those from rural dwelling foxes.

My photos below show: (top right) Human hair, fishing lures, food packaging and cables found inside stomachs of foxes; (bottom) European red fox at an urban park in Vaucluse; (left) fox stomach contents of processed meat, bone fragments and plant matter.

We concluded that introduced foxes are highly opportunistic and adaptable predators in Australian urban environments. Future research is required to confirm if introduced foxes are causing the decline of populations of native species living in urban locations.

Ben Stepkovitch

Visit us at www.landcare.nsw.gov.au/groups/scone-landcare-group