

# FROG CALL

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Photo by Kim McCaffery *Litoria phyllochroa*  
LEAF GREEN TREE FROG



*You are invited to our next FATS meeting. Everyone is welcome.*

Arrive from 6.30 pm for a 7pm start.

**Friday 2 June 2017**

FATS meet at the Education Centre,  
Bicentennial Pk, Sydney Olympic Park

Easy walk from Concord West railway station and straight down Victoria Ave.

Take a torch.

By car: Enter from Australia Ave at the Bicentennial Park main entrance,

turn off to the right and drive through the park. It is a one way road.

Or enter from Bennelong Road / Parkway.

It is a short stretch of two way road.

Park in P10f car park, the last car park before the exit gate.

See map page 8

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## FATS meeting format Friday 2 June 2017

**6.30 pm** Lost frogs seeking adoption: 2 x Green Tree Frogs *Litoria caerulea*, 1x *Lt peroni* and 2 x *Lt gracilentia*. First time frog adopters and children have priority. Please bring your FATS membership card and cash \$50 donation. Sorry we have no EFTPOS. Your current NSW NPWS amphibian licence must be sighted on the night. Rescued frogs can never be released. Whilst rescued frogs out of quarantine may appear well, we encourage you to have an experienced herp or "exotics" vet check them over, for worming or other health assessments and possible medication, as soon as possible and annually.

**7.00 pm** Welcome and announcements

**7.30 pm** Main speaker: Michael McFadden "Update on the Corroboree Frog recovery program." Grant Webster: Proposed changes to the scientific names of frogs in Australia.

**9.30 pm** Show us your frog images. Tell us about your frogging trips or experiences. Guessing competition, frog adoptions, supper, relax and chat with frog friends and experts.

- Last meeting's main speakers Arthur White  
The response of the scientific community in Australia to the decline of native frogs.  
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### LAST FATS MEETING 7 APRIL 2017

**F**ollowing a warm welcome from Marion Anstis, Arthur White presented the scientific report on Australian Frogs. They are in a dire way, with dozens of amphibian species close to extinction. Will Australian politicians rescue our totem animal? Are they listening? Do they care? The 2016 scientific report names Chytrid the biggest threat with the likely extinction of many of the Australian frog species within the next few years. See article to the right on this page.



Photo by Josie Styles Smiths Lake March 2016 Arthur White fixing the Harp Trap legs using a fence post

Fabian Byres gave an interesting, humorous and insightful talk on the FATS March 2017 Smith Lake field trip showing wonderful images of frogs, other wildlife, fungi, short video clips, flowers, flora, maps, aerial photos and birds. See pages 4 and 5. Jilli Streit showed fantastic images and spoke of Luc and her exciting and slightly perilous trip to Florida and Costa Rica. Many birds, video clips, fungi, plants, maps and frog photos of course! MW

## PRIORITIES FOR MANAGEMENT OF CHYTRIDIOMYCOSIS IN AUSTRALIA

**A**rthur White spoke about saving frogs from extinction and the work of the following scientists: Lee F. Skerratt A B , Lee Berger A B L, Nick Clemann C , Dave A. Hunter D , Gerry Marantelli E , David A. Newell F , Annie Philips G , Michael McFadden H , Harry B. Hines I , Ben C. Scheele A , Laura A. Brannelly A , Rick Speare A K , Stephanie Versteegen E , Scott D. Cashins A and Matt West J.

**ABSTRACT:** To protect Australian amphibian biodiversity, we have identified and prioritised frog species at an imminent risk of extinction from chytridiomycosis, and devised national management and research priorities for disease mitigation.

Six Australian frogs have not been observed in the wild since the initial emergence of chytridiomycosis and may be extinct.

Seven extant frog species were assessed as needing urgent conservation interventions because of (1) their small populations and/or ongoing declines throughout their ranges (southern corroboree frog (*Pseudophryne corroboree*, New South Wales), northern corroboree frog (*Pseudophryne pengillyei*, Australian Capital Territory, New South Wales), Baw Baw frog (*Philoria frosti*, Victoria), *Litoria spenceri* (spotted tree frog, Victoria, New South Wales), Kroombit tinkerfrog (*Taudactylus pleione*, Queensland), armoured mist frog (*Litoria lorica*, Queensland)) or (2) predicted severe decline associated with the spread of chytridiomycosis in the case of Tasmanian tree frog (*Litoria burrowsae*, Tasmania).

For these species, the risk of extinction is high, but can be mitigated. They require increased survey effort to define their distributional limits and to monitor and detect further population changes, as well as well-resourced management strategies that include captive assurance populations.

A further 22 frog species were considered at a moderate to lower risk of extinction from chytridiomycosis. Management actions that identify and create or maintain habitat refugia from chytridiomycosis and target other threatening processes such as habitat loss and degradation may be effective in promoting their recovery. Our assessments for some of these species remain uncertain and further taxonomical clarification is needed to determine their conservation importance. Management actions are currently being developed and trialled to mitigate the threat posed by chytridiomycosis.

However, proven solutions to facilitate population recovery in the wild are lacking; hence, we prioritise research topics to achieve this aim. Importantly, the effectiveness of novel management solutions will likely differ among species due to variation in disease ecology, highlighting the need for species-specific research.

We call for an independent management and research fund of AU\$15 million over 5 years to be allocated to recovery actions as determined by a National Chytridiomycosis Working Group of amphibian managers and scientists. Procrastination on this issue will likely result in additional extinction of Australia's amphibians in the near future.  
<http://www.bioone.org/doi/abs/10.1071/WR15071>



**VALE LOUISE VOIGT**

**Chief Executive, Barnardos Australia 1983 - 2015**

**F**ATS wish to pay tribute to Louise Voigt's life and work as the long-time Chief Executive of Barnardos. She passed away peacefully at her Sydney home on Friday 7th April 2017. Louise was our past FATS President, Lothar Voigt's partner and wife for 50 years. Like many members of our frog society, Lothar's family were active supporters of FATS and amphibian conservation in Australia for decades.

"Louise Voigt was loved, admired and respected by all who worked with her over many years. She was a towering presence, challenging orthodoxies, guiding and mentoring staff and creating a legacy that will endure for generations.

Louise led Barnardos from 1983 to her retirement in 2015. She was a fearless advocate for children. She inspired the development of evidence-based care and many of the practices she pioneered are now standard across the child welfare sector.

During her period of leadership at Barnardos she championed Children's Family Centres to assist families at risk to stay together in times of crisis and prevent the premature removal of children. She was responsible for the care of thousands of children who could no longer safely stay with their families. She pioneered open adoption in Australia and oversaw the adoption of 246 young people.

Louise's strong sense of social justice for the most vulnerable in our community, especially Aboriginal and Torres Strait Islander people, is the foundation of Barnardos' commitment to delivering quality services to children, young people and their families.

She received the NSW Association of Social Workers Social Justice Award and Lifetime Achievement awards from the Association of Child Welfare Agencies (ACWA) and the University of Sydney."

Our thoughts are with Louise's family who will mark her death privately. A public memorial will take place in coming months. In lieu of flowers, those wishing to pay their respects can donate to

continue Louise's legacy through the work of Barnardos Australia. <http://www.barnardos.org.au/media-centre/latest-news/barnardos-creates-louise-voigt-award-for-aboriginal-or-torres-strait-islander-staff/> **To donate to Barnardos call 1800 663 441"**

<http://www.barnardos.org.au/media-centre/latest-news/barnardos-mourns-the-loss-of-long-time-chief-executive-louise-voigt/> <https://www.kidsguardian.nsw.gov.au/about-us/news/vale-louise-voigt-passionate-advocate-for-children>

**Louise and the Archibald entry by Guy Morgan.** Guy's work is a tribute to Louise Voigt's 30-year leadership of Barnardos Australia and particularly recognises the vital part her organisation makes in connecting children with their permanent, adopted families,' says Guy Morgan. 'Louise is a powerful, contemporary visionary, a forthright advocate for children's rights and a promoter of the absolute benefits of open adoption. Dedicated and energetic – even in her eighth decade – she has never been a self-promoter.

With the benefits to children foremost in her thinking, it has been a rare privilege to portray her as the thoughtful, powerful and forward-looking person she is and to acknowledge her contribution on the eve of her retirement as CEO.'

<https://www.artgallery.nsw.gov.au/prizes/archibald/2015/29601/> After suffering a major retinal detachment in late 2011, Guy Morgan has permanently impaired vision: there are no round circles or straight lines when viewing with his left eye. To demonstrate what he sees, he turned to portraiture.

**FATS AGM NOTICE FRIDAY 4 August 2017**

**T**he FATS AGM will be held on 4/8 commencing 7pm. FATS meet at the Education Centre, Bicentennial Park, Sydney Olympic Park. If you would like to ask any questions about joining the FATS committee, please give us a call. Contact our President Arthur White at least two weeks before the meeting for further information and to submit items. We appreciate fresh ideas and new members on our committee. No experience required. The committee meet 6 times a year. No task commitments or time expected of committee members, other than what you are able to spare. See contacts details on page 11. **Arthur White**

**2017 FATS FROG-O-GRAPHIC COMPETITION**

**FATS members' 2017 Frog-O-Graphic competition opens 1st May and closes 31st August, 2017. We look forward to seeing your entries. New comers to photography are encouraged to submit entries. Categories:**

- Junior and Senior Best Frog Image,
- Junior and Senior Best Pet Frog Image,
- Junior and Senior Most Interesting Image,
- People's Choice.

Winners to be decided by a panel of judges. People's Choice will be decided by everyone present at our 1<sup>st</sup> December FATS meeting. All entries are by email to [photos@fats.org.au](mailto:photos@fats.org.au) **Please state: your name, confirm that you are a financial FATS member, age if under 18, whether the image is of a pet frog, if you are new to frog photography and your contact phone number.** Maximum 6 entries per person. Maximum attachment size 6 MB. Fabulous prizes will be awarded for each category. Entries must be original and your own work. The winning entries may be featured in FrogCall, FATS 2018 calendar and other FATS publications. **Arthur White**

**MARCH 2017 SMITHS LAKE FIELD TRIP REPORT  
BY FABIAN BYRES**



**On the track at Twin Fire Dams, Wallingat State Forest Saturday 18 March 2017. Note the two eggs as Marion pointed out at the FATS meeting. Photo Josie Styles.**

Five photos below by Arthur White are of wildlife around Smiths Lake March 2017.



**Smiths Lake March 2017 Photo Arthur White**

**Cass and Pete taking photos of gorgeous moth.  
Photo by Josie Styles.**





First nights frogging at Treachery Swamp looking for *Uperoleia mahonyi*. Photo by Arthur White



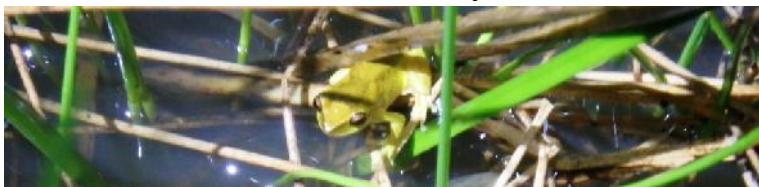
Fabian Byres and Karen White (above)  
Treachery Head Photos by Arthur White above & below



Smiths Lake Photos above & below by Fabian Byers



Below Second nights frogging at Sugar Creek quarry  
male *Litoria revelata* Photo by Arthur White



Second nights frogging at Twin Fire Dams in Wallingat  
Nat Pk. Belly & dorsal shot of *Uperoleia fusca*. Above & right  
Right *L. revelata* in palm fronds Photos by Arthur White

## WORLD'S FROGS UNVEIL 5-MILLION-YEAR PLAN TO MOVE UP FOOD CHAIN

**E**arth: Frogs say they ultimately see themselves rising in the food chain to a position somewhere between raccoons and wolverines. Declaring that they had occupied a low-level rung in the global ecosystem for far too long, the world's frogs revealed Thursday an ambitious 5-million-year plan to move up the food chain.



According to frogs, the long-term, multipronged strategy will include a series of dietary, cognitive, behavioural, and morphological adaptations designed to help them as they evolve to inhabit a higher place in the biosphere's order of predation. Provided they adhere to the developmental benchmarks they set out and run into few obstacles, frogs said they ultimately envision themselves at a tier of the food chain on par with hawks and ocelots.

"We recognize that this is a major undertaking for our kind, but we believe we frogs are more than up to the challenge, and 5 million years from now, we are extremely confident that snakes will no longer be eating us—we'll be eating them," said a red-eyed tree frog, who spoke on behalf of all 4,800 unique species belonging to the taxonomic order Anura, explaining that their first course of action would be to double in size. "Right now, we prey on flies, moths, crickets, and maybe a worm here or there, but mostly just assorted bugs. We no longer consider this acceptable. Under our new plan, we see ourselves regularly consuming rodents, lizards, rabbits, and, if everything goes as anticipated, bats. Being amphibious means we can go after prey on both land and water, and we really think that's a trait we can leverage."

"We recognize that such a diet will require pointed teeth as well as powerful jaws, and it is our intention to evolve these attributes on the fixed schedule we've laid out," the frog continued. "As you can see on our timetable, we'll start in on growing incisors in the near future. Noting that they're "already pretty good at lunging," frogs explained that the first phase of their plan, expected to take place over a 600,000-year period, will include a 400 percent increase in muscle mass, allowing them to leap high enough to take out small, low-flying songbirds and, eventually, ducks.

In addition, frogs have indicated that by the 2-million-year mark, they will make use of selective breeding to lengthen their rudimentary teeth into long, cobra-like fangs. This, along with the introduction of claws in their forelegs, will give them the

opportunity to reverse the longstanding predator-prey relationships they're currently engaged in with animals such as bass, shrews, otters, and turtles. The frogs' timetable also includes an assessment of the claws after 2.6 million years to determine whether they should be made retractable.

While frogs confirmed their intention to continue capturing prey by shooting out their tongues, they expressed their desire to add some sharp barbs or a forked appearance to the appendage to give them the menacing appearance of "a true predator."

"We haven't decided whether we're going to hunt in packs yet, but it's certainly something we're considering," said a North American wood frog, describing how in the future, teams of frogs might stalk hooved mammals through a forest, flush them out of their hiding places, and then pounce upon them all at once. "We saw wolves doing this kind of thing and thought, 'Why not us?' It's ambitious, but we like our chances of pulling it off. It goes without saying that we'll first need to develop the capacity to rotate our heads from left to right, though," it added.

The tailless, moist-bodied amphibian went on to confirm reports that any hunting initiatives conducted against much larger faunae would be led by members of the poison dart frog community.

Several frogs told reporters they were first inspired to rise up the ranks of the food chain by the shark, which they described as "the ultimate hunter-killer," saying they eventually hope to establish a longer-term plan that would allow them to one day match the aquatic predator's impressive speed of up to 30 miles per hour and its bite force of several hundred pounds per square inch.

While frogs stressed they currently harbor no intention of becoming apex predators, they pointed to one evolutionary advantage they believe could allow them to rise dramatically in nature's pecking order.

"Being amphibious means we can go after prey on both land and water, and we really think that's a trait we can leverage," a Malayan horned frog said. "If a land mammal tries to escape from us into a river or pond, well, guess who has the upper hand in aquatic environments? Similarly, if a bunch of sea lions are sunning themselves on land, clambering around on their flippers, we can sneak up under cover of water, hop ashore, and rip them to pieces. Frankly," the frog continued, "we'll be the perfect killing machines."

At press time, billions of frogs around the world were reportedly sitting on lily pads and trying their hardest to grow razor-sharp talons. **THE ONION**  
[http://www.theonion.com/article/worlds-frogs-unveil-5-million-year-plan-move-food--50750?utm\\_content=Main&utm\\_campaign=SF&utm\\_source=Facebook&utm\\_medium=SocialMarketing](http://www.theonion.com/article/worlds-frogs-unveil-5-million-year-plan-move-food--50750?utm_content=Main&utm_campaign=SF&utm_source=Facebook&utm_medium=SocialMarketing)

## SAVE THE FROGS

**A**trazine is one of the world's most common pesticides: **Over 80 million pounds of it were used on American crops last year, and it has been in use for 50 years. This harmful pesticide is an endocrine disruptor that can turn male frogs into females at concentrations as low as 2.5 parts per billion. Atrazine causes cancer in laboratory mammals and developmental problems in fish. Atrazine is one of the most commonly detected pesticides in rainwater, groundwater and tapwater in the USA. Atrazine is used on corn, sugar, sorghum, yams, rice, christmas trees, and for lawn care.**

Frogs and humans share half our DNA, so Atrazine can't be good for humans either. That's likely why the European Union banned the harmful pesticide in 2004. But the company that produces it, Syngenta (based in Switzerland!) has \$11 billion in revenues, and has a huge lobby to keep Atrazine on the market in the USA. SAVE THE FROGS! needs your help to ensure Atrazine gets federally banned and out of production as soon as possible! *This is a summary of the published findings of the Rohr Lab on the biological effects of Atrazine. Prepared by Dr. Jason Rohr. Literature Cited is at the bottom of this page.*

The Rohr Lab has conducted several studies examining the effects of ecologically relevant concentrations of the herbicide atrazine on amphibians (Rohr et al. 2003, 2004, Rohr and Crumrine 2005, Rohr and Palmer 2005, Rohr et al. 2006, Rohr et al. 2008a, Rohr et al. 2008b). These amphibian studies show that atrazine can elevate locomotor activity (Rohr et al. 2003, 2004, Rohr and Crumrine 2005, Rohr and Palmer 2005), reduce antipredator behaviors (Rohr and Crumrine 2005), diminish growth rates (Rohr et al. 2004, Rohr and Crumrine 2005, Rohr et al. in review), alter development (Rohr et al. 2004, Rohr and Crumrine 2005, Rohr et al. in review), reduce survival (Rohr et al. 2004, Rohr et al. 2006, Rohr et al. 2008b, Rohr et al. in review), decrease cellular immunity (Rohr et al. 2008b), increase trematode infections (Rohr et al. 2008a, Rohr et al. 2008b), enhance desiccation risk (Rohr and Palmer 2005), and alter competitive interactions (Rohr and Crumrine 2005).

Atrazine exposure, however, did not affect olfactory abilities of toads (Rohr et al. 2009) and occasionally did not increase mortality (Rohr et al. 2003, Rohr et al. 2008a, Rohr et al. 2009).

Some of the effects of atrazine on amphibians persisted well after exposure to the chemical ceased and thus could be permanent. For instance, elevated activity and reduced water conserving behaviours persisted for 238 days post-atrazine exposure and there was no evidence of recovery for these responses (Rohr and Palmer 2005). Atrazine also increased mortality risk for salamanders after atrazine exposure ceased (Rohr et al. 2006).

Enhanced mortality risk post-atrazine exposure might be due to the effects of atrazine on susceptibility and exposure to infections. Rohr and colleagues showed that atrazine can elevate periphyton (snail food) and snails, the latter of which is a taxon that can transmit trematode infections to amphibians (Rohr et al. 2008b). Furthermore, atrazine reduced the abundance of immune cells known to be important for

controlling trematode infections (Rohr et al. 2008b). Consequently, in both field surveys and manipulative experiments, atrazine was associated with elevated amphibian trematode infections, which are known to cause debility and mortality (Rohr et al. 2008a, Rohr et al. 2008b).

A meta-analysis of the effects of atrazine on freshwater fish and amphibians revealed consistent effects of this chemical across studies (Rohr and McCoy 2010). Atrazine reduced size at or near metamorphosis in 15 of 17 studies and 14 of 14 species, elevated amphibian and fish activity in 12 of 13 studies, and reduced antipredator behaviors in 6 of 7 studies. Atrazine was associated with a reduction in 33 of 43 immune function end points and with an increase in 13 of 16 infection end points. Atrazine altered at least one aspect of gonadal morphology in 7 of 10 studies and consistently affected gonadal function, altering spermatogenesis in 2 of 2 studies and sex hormone concentrations in 6 of 7 studies (Rohr and McCoy 2010).

Members of the Rohr Lab have also documented errors and bias associated with reviews on the biological effects of atrazine that might affect policy and public perception about the chemical (Rohr and McCoy in press). Rohr and McCoy (in press) examined whether a review on the effects of atrazine on freshwater fish and amphibians, funded by the company that produces atrazine, represented the primary literature accurately. They report that this industry-funded review misrepresented more than 50 studies and included 122 inaccurate and 22 misleading statements. Of these inaccurate and misleading statements, 96.5 percent seem to benefit the makers of atrazine in that they support the safety of the chemical.

Further, this review cast criticisms at 94% of the studies where atrazine had adverse effects, but only weakly criticized the 2.8% of studies where there were no effects of atrazine (Rohr and McCoy in press).

<http://www.savethefrogs.com/threats/pesticides/atrazine/index.html>

**R**oundup (also sold as Touchdown Total) is lethal to gray treefrog and leopard frog tadpoles, and most likely a host of other as yet untested frog species. Roundup is the most commonly applied herbicide in the USA. In 2007, as much as 185 million pounds of glyphosate was used by U.S. farmers, double the amount used six years prior, according to Environmental Protection Agency (EPA) data. Roundup is produced by Monsanto, the same folks who gave us Agent Orange.

Over half of the DNA found in frogs is also found in humans, so if these pesticides kill frogs, imagine what they do to us! Is Roundup even good for crops? A team of USDA researchers reported that glyphosate (the active ingredient in Roundup) may actually be causing fungal root disease in "Roundup-ready" corn and soybeans. Glyphosate is used worldwide, as can be seen on this billboard photographed in downtown Kumasi, Ghana. Health Canada, the Federal department responsible for helping Canadians maintain and improve their health, was ordered in November 2011 to examine the effect of Roundup on amphibians. The Netherlands banned Roundup in 2014

<http://www.savethefrogs.com/threats/pesticides/index.html>

**BREAKTHROUGH IN 'AMPHIBIAN PLAGUE': DEADLY FUNGUS GENES IDENTIFIED** extracts

**B**atrachochytrium salamandrivorans (Bsal), dubbed the 'amphibian plague', is a highly infectious chytrid fungus that affects many species of salamanders and newts, literally digesting their skin, which quickly leads to death. Since its discovery in 2013, very little has been found about how the fungus causes disease. Now, researchers from Imperial College London, Ghent University, and the Broad Institute, have sequenced and identified the genes responsible for Bsal from an infected salamander. The authors say the findings, published last week in the journal Nature Communications, could ultimately help conservation efforts and provide drug targets in the future to help curb the disease.....

One gene category that Bsal and Bd had in common were genes for metalloproteases, which are enzymes that digest amphibian skin so the patches can be colonised by the fungus. However, they were present in vastly different quantities in each type of fungus. This might explain the differences and similarities in the way each fungus type infects amphibians.....

The researchers also found that the newly identified fungal genes are highly 'switched on' during infection of salamanders, but recognise that more work is needed to definitely categorise them as harmful or non-harmful. Unlike Bd, Bsal also appeared to suppress salamanders' immune systems, suggesting that this is a mechanism through which Bsal colonises its hosts.....

Bsal was first discovered in 2013 by scientists from Imperial College London and Ghent University who were investigating a massive drop in numbers of fire salamanders in the Netherlands. The disease appears to have originated from Asia and is now spreading through Europe. Last year, the US government banned the import of salamanders to reduce the threat posed by Bsal, where it hasn't yet been detected. The next step for the researchers will be to sequence genes from more infected salamanders to build a bigger picture of the genes. **More information: Rhys A. Farrer et al. Genomic innovations linked to infection strategies across emerging pathogenic chytrid fungi, Nature Communications (2017). DOI: 10.1038/ncomms14742 Journal reference: Nature Communications Provided by: Imperial College London HERPDIGEST - VOL. 19 ISSUE #22 DATE - 4/3/17 phys.org, 27 March 2017 by Caroline Brogan**

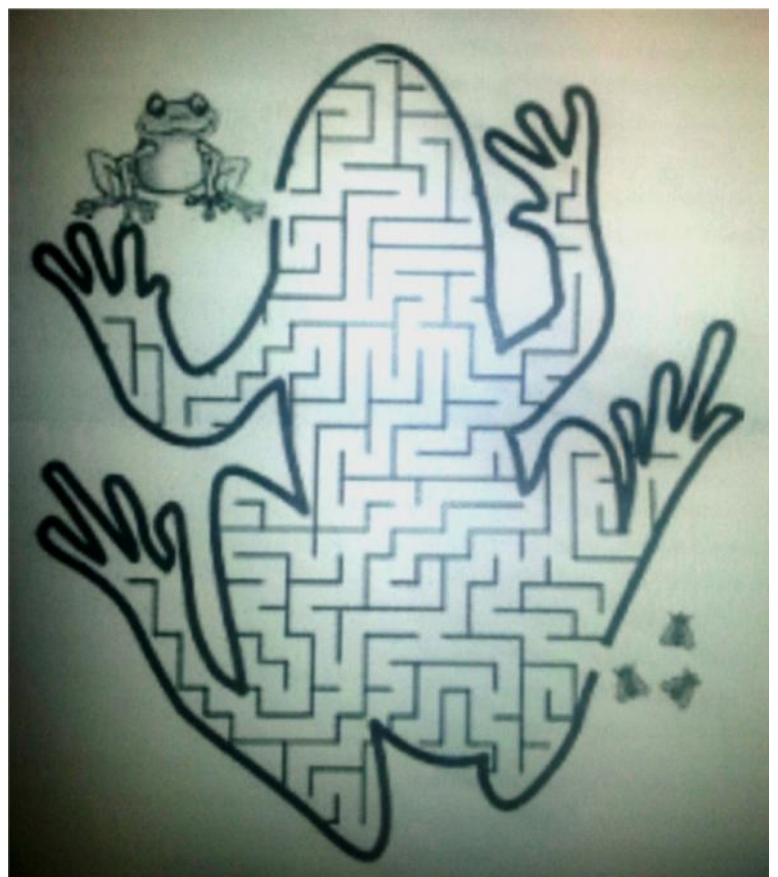


With compliments from David Flack above

FATS MEETING MAP



Puzzle below is from the Hawkesbury Herp Society





## SPOTTED TREE FROG FIGHTING BACK FROM EXTINCTION

**T**he critically endangered Spotted Tree Frog reintroduced into Kosciuszko National Park is surprising researchers by showing outstanding survival rates and breeding sooner than expected.

Recent monitoring shows that more than 50 percent of the four hundred elusive grey-green coloured amphibians released into the park three years ago, have survived and are breeding!

The Saving our Species and Environmental Trust project is helping secure critical populations of this native frog in the wild by focusing on the reintroduction of captive bred animals. Watch the ABC's coverage

<http://www.abc.net.au/news/2017-03-27/saving-spotted-tree-frogs-in-kosciuszko-from-extinction/8389090> and

interview with Senior Threatened Species Officer, Dr David Hunter and read the media release

<http://www.environment.nsw.gov.au/media/OEHMedia17032701.htm> Saving our Species Newsletter - Autumn Edition [savingourspecies@environment.nsw.gov.au](mailto:savingourspecies@environment.nsw.gov.au)



Image credit: D.Hunter / OEH

**PREMIERS MAY COME AND GO, BUT THE MOVEMENT OF PEOPLE STANDING UP FOR NATURE IN NEW SOUTH WALES IS MIGHTY, GROWING AND UNSTOPPABLE. extracts**

**W**hen I moved to Sydney from the US, I was struck by the jaw-dropping landscapes within a stone's throw of home. A short drive takes me swimming in the amazing waters of Royal National Park, or having a casual run in with a goanna— not something you see every day in Boston! Knowing how much of this beauty is under threat today, I just can't sit by and watch it disappear. I feel grateful to be able to contribute in some small way to protecting nature in my daily life. Most of all, I feel grateful to work alongside you. Please keep fighting with me again in 2017 by making a donation today.

When our former Premier Mike Baird first won office, he gave us his word that he would protect nature in this state. His actions - including his 'war on trees and wildlife' as we labelled it - have clearly done otherwise. The day his new 'biodiversity' extinction laws passed Parliament was a particularly dark one for many of us.

Many of us felt badly let down, and we made sure the Premier and the Government knew it. Partly as a result of

our determined campaigning, and the community ruckus we helped generate, Mike Baird left office greatly diminished and far more unpopular than when he came to it.

Now we have a new Premier, Gladys Berejiklian, just seven days in the job, and as of yesterday a new Environment Minister, Gabrielle Upton. Does this 'refreshed' government herald fresh hope for our precious natural environment, or will it be the 'same old' sell out of our wildlife and beautiful natural places to shortsighted and greedy vested interests? We can't afford to wait and see. Donate today to help us win the fight for nature in 2017.

Looking back over the time of Mike Baird as Premier, what struck me with force was the reaction I witnessed from you. The more politicians and big business have set their sights (and wallets) on destroying nature, the bigger and bolder your response has grown. Here's a small snapshot of our combined achievements over the past year: **You stood up for nature to protect our land-clearing laws**



When the former Premier announced his plans to gut our land-clearing laws, you sprang to action. Over 27,000 supporters signed petitions, made submissions, attended rallies and picked up your phones to protect our trees and wildlife. We know the laws that passed would have been far worse if it wasn't for your crucial presence every step of the way. Together, we'll be ready to hit the ground running in the new year to stop the worst impacts of land clearing.....

My Nature Conservation Council team also worked with landholders across NSW to better manage fire and weeds and restore wildlife habitat over a staggering 23,000 hectares. Nature Conservation Council supporters stem from all walks of life. Whether you donate, volunteer, sign petitions, take action in your community, tweet or chat about the issues with your neighbour, our strength lies in our diversity, and every one of us has an important role to play as a voice for nature.

Help us get off have a great year for nature in 2017 by making a tax deductible donation today. Thanks for never turning back while scaling the sometimes rocky paths. **Kate Smolski CEO, Nature Conservation Council Help keep Nature Conservation Council strong. Become a monthly Voice for Nature' or chip in a one-off donation. Follow us on Twitter or like us on Facebook. <http://natureorg.nationbuilder.com/>**

## 2017 THREATENED SPECIES CHILDREN'S ART COMPETITION



Green and Golden Bell Frog

Jordan

**T**he 2017 Threatened Species Children's Art Competition will be open for entries from all primary aged children in NSW and the ACT from 5 June to 4 August. The competition brings to the attention of our next generation the need to protect species of native plants and animals that are currently under enormous threat.

<http://www.threatenedspeciesartcomp.net.au/>

Last year we had quite a number of children draw or paint beautiful pictures of threatened frogs for the 2016 art competition. The competition provides an accessible way to teach the next generation about our threatened species.

Last year's competition was a huge success, with over 600 children participating. Images of the finalists' inspiring, creative and thought provoking artworks can be viewed at <http://www.threatenedspeciesartcomp.net.au/threatened-species-artworks.html> and <http://www.threatenedspeciesartcomp.net.au/finalists-2016.html> This year's competition is shaping up to be even bigger. A prize giving will be held on 7 September, Threatened Species Day, with a two week exhibition following. Your assistance would be very helpful in spreading the word about the competition. This could be by:

- endorsing the competition and allowing us to use your logo on our supporters page  
<http://www.threatenedspeciesartcomp.net.au/supporters.html>
- visiting local schools and after school centres and perhaps giving a talk with our assistance.
- distributing flyers that can be posted to you or sent by email
- spreading the word through your networks and social media, and joining the Facebook group  
<https://www.facebook.com/groups/289862308022985/>
- donating a prize for the competition. Prizes valued from \$30-\$150 will assist us greatly in attracting entries.
- attending our launch and the opening of the exhibition in Sydney and presenting your prize.

- making a donation towards running an effective competition that spreads the word about our native animals and plants in crisis. **Lorraine Bower Co-ordinator, Threatened Species Children's Art Competition PO Box 226, Annandale NSW 2038**  
**Website:**<http://www.threatenedspeciesartcomp.net.au>  
**Follow the competition on Facebook**  
<https://www.facebook.com/groups/289862308022985/>



### HERPDIGEST

**H**erpdigest made available an extensive bibliography of papers on infectious diseases of reptiles and amphibians, all peer-reviewed journals published from January to July 2016. First published in the "Journal of Herpetological Medicine and Surgery" Volume 25 #3-4. It is reprinted courtesy of Association of Reptilian and Amphibian Veterinarians (ARAV)- Compiled by Rachel E. Marschang, Frederic Gandar and Dave Craton <http://arav.org/>  
<http://jherpmedsurg.com/doi/full/10.5818/1529-9651-25.3.137>

The document is broken up into four sections, bacteria, fungi, parasites and viruses for reptiles and amphibians. An important resource for anyone interested in the future of herps. It has been posted to the FATS Facebook page in the files folder.

### COULD FROG SNOT CURE THE FLU? Scientists discover slimy mucus contains powerful peptides that destroy most strains of human influenza (extracts)

**T**he slime from a rare species of frog could be used to develop drugs that cure the flu, new research claims. Scientists have long known that frog mucus holds powerful peptides that defend them against bacteria. But now a team of US scientists has found mucus secreted by the *hydrophylax bahuvistara* frog, native to southern India, can destroy many strains of human flu and protect mice against flu infection. The researchers say anti-flu peptides could be useful when vaccines are unavailable, in the case of a new pandemic strain, or when circulating strains become resistant to current drugs.....Dr Jacob's lab is now exploring ways to stabilise antiviral peptides such as urumin, as well as looking for frog-derived peptides that are active against other viruses like Dengue and Zika. 18/4/17, **Daily Mail.com Herpdigest - vol. 19 issue #25 date - 19/4/17** Free electronic newsletter covering the latest news on reptiles and amphibians

**FATS MEETINGS** commence at 7 pm, (arrive from 6.30 pm) and end about 10 pm, at the Education Centre, Bicentennial Park, Sydney Olympic Park, Homebush Bay. See page 8. They are usually held on the **first Friday of every EVEN month** February, April, June, August, October and December. Call, check our web site, Facebook page or email us for further directions. We hold 6 informative, informal, topical, practical and free meetings each year. Visitors are welcome. We are actively involved in monitoring frog populations, field studies and trips, have stalls at local events, produce the newsletter FROGCALL and FROGFACTS information sheets. FATS attend many community fairs and shows. Please contact Kathy Potter if you can assist as a frog explainer, even for an hour. No experience required. Encourage your frog friends to join or donate to FATS. Donations help with the costs of frog rescue, student grants, research and advocacy.

All expressions of opinion and information in FrogCall are published on the basis that they are not to be regarded as an official opinion of the Frog and Tadpole Study Group Committee, unless expressly so stated.

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**FATS ON FACEBOOK:** FATS has over 2,041 Facebook members from almost every continent. Posts vary from husbandry and frog identification enquiries to photos and posts about pets, gardens, wild frogs, research, new discoveries, jokes and habitats from all over the world. The page includes dozens of information files. <https://www.facebook.com/groups/FATSNSW/>

**RESCUED FROGS** are seeking forever homes are at our meetings. Please contact us in advance if you wish to adopt a frog. Cash donation required to cover care costs. Sorry we have no EFTPOS. FATS must sight your current amphibian licence. Licences can be obtained from NSW National Parks and Wildlife Service, Office of Environment and Heritage.

<http://www.environment.nsw.gov.au/wildlifelicences/GettingAnAmphibianKeepersLicence.htm> We request you join FATS before adopting a frog. This can be done on the meeting night. Most rescued frogs have not had a vet visit unless obviously ill. Please take you new, formerly wild pet to an experienced herp vet for a check-up, possible worming and/or antibiotics. Consider having annual checks for your frog pets. Some vets offer discounts.



Thank you to the committee members, FrogCall supporters, meeting speakers, Frog-O-Graphic competition entrants, events participants and organisers David, Kathy, Sarah and Harriet Potter and Ryan Kershaw. The FrogCall articles, photos, media and webpage links, membership administration and envelope preparation is greatly appreciated. Special thanks to newsletter contributors, Robert Wall, George Madani, Jilli Streit, Karen & Arthur White, Andrew Nelson, Michelle Toms, Josie Styles, Jodi Rowley, Wendy & Phillip Grimm and Marion Anstis.



**FROGWATCH HELPLINE 0419 249 728**

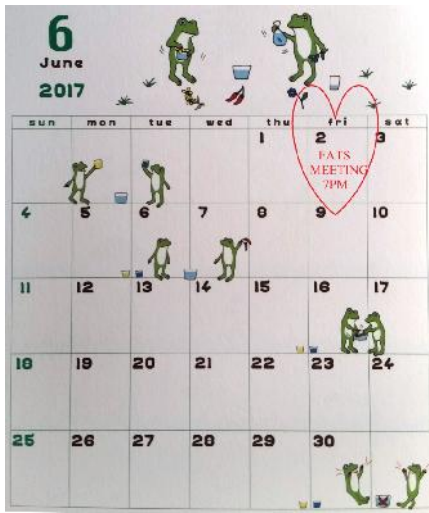
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General Committee members	Andre Rank, Jilli Streit, Punia Jeffery and Vicki Deluca		

**Jodi Rowley speaking at a FATS meeting**





BY GOLLY, HOW WOULD PEOPLE LIKE IT IF ANIMALS BULLDOZED A SUBURBS AND PUT IN NEW TREES ??!



## DON'T LET THE NSW STATE GOVERNMENT GET AWAY WITH GUTTING OUR LAND-CLEARING LAWS!

The NSW government has gutted the land-clearing laws that save the lives of thousands of native animals like koalas, pygmy possums and squirrel gliders every year. We can't let them get away with it. Let's keep standing up for nature and what's right. Share this message from CEO Kate Smolski. If you're able, chip in to help us hold the government to account for the destruction their laws will cause [www.bit.ly/landclearingnsw](http://www.bit.ly/landclearingnsw). You and I need to do everything in our power to protect the our endangered animals, trees and climate.

Call for an investigation into the alleged illegal land clearing exposed by ABC's Lateline program. Keeping an eye on the fine print - The devil will be in the detail. Once the trees start falling, shift gears and make sure that the damage caused by the laws is exposed in the media, to decision-makers and to law enforcement. And with you by our side we'll lobby decision makers to see the light of day and build the case for why these laws simply can't stand.

<https://natureorg.nationbuilder.com/standup4nature>

<https://www.facebook.com/naturensw/videos/1353771944634341>

<https://www.nature.org.au/our-campaigns/land-clearing-and-wildlife/>

Spread the word about this latest atrocity from the Liberal and National Parties. Nationals MPs, big agri-business and developers are being given powers to trash our precious woodlands under the new Biodiveristy Conservation Act. This new act will add extinction pressures to our state's 1000 threatened species; threaten our clean, reliable water supplies; turn our fertile land into wasteland through erosion and salinity; put landmark trees and bushland at risk and add further to Australia's carbon pollution.

The state's network of Travelling Stock Routes must remain in public hands and be better managed to preserve its priceless biodiversity and cultural heritage values. The Berejiklian government is embarking on the dangerous course of letting landholders decide for themselves whether they can clear many types of endangered ecosystems under new tree-clearing rules.

### END THE COALITION'S WAR ON TREES

#### Smiths Lake field trip Eagle Ray Photo Michelle Toms



#### FATS field trip Smiths Lake March 2016 (left)

Cassie, Bowen, Scott and Linda Martin, Michelle Toms, Cassandra Jane, Peter Spradbrow, Punia Jeffery, Karen & Arthur White, Luc and Jilli Streit, Robert Wall and ? Sorry, I think I am missing some people. Photo taken by Josie Stokes.

