

Facebook page: Frog and Tadpole Study group of NSW - FATS Email: fatsgroupnsw@hotmail.com

NEWSLETTER No. 118 April 2012

\*\*\* NO FATS MEETING \*\*\* \*\*\* ON 6/4, "GOOD FRIDAY" \*\*\*



Photo by Jody Rowley - Gracixalus supercornutus

To adopt a frog, NSW NPWS amphibian licence must be sighted at FATS meeting. Cash required for donations to adopt frogs and guessing competitions.

Arrive 6.30 pm for a 7pm start.

PO Box 296 Rockdale NSW 2216

Frogwatch Helpline 0419 249 728

Website: www.fats.org.au

ABN: 34 282 154 794

**Friday** 

## \*\*\* NO FATS MEETING ON 6/4 \*\*\* FATS meet at the **Education Centre, Bicentennial Pk**

Easy walk from Concord West railway station and straight down Victoria Ave. If walking, take a strong torch (Apr - Oct). By car: Enter from Australia Ave at the Bicentennial Park main entrance, turn off to the right and drive through the park. It's a one way road. Or enter from Bennelong Road / Parkway. It's a short stretch of two way road. Park in p10f car park, the last car park before the exit gate. See map p12.

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# MEETING FORMAT Friday 13<sup>th</sup> April 2012

6.30 pm Lost frogs needing forever homes, including White Lips, Perons, Green Tree Frogs, Rubellas & Fallaxes. Please bring your FATS membership card & cash \$30 - \$50 donation. NSW NPWS amphibian licence must be sighted on the night. Rescued frogs can never be released.

7.00pm Welcome and announcements.

7.30 pm Main speaker: Matthew Bulbert (Macquarie Uni) "It's a hard life being a male Túngara frog: a lesson in dealing with choosy females, eavesdropping bats, blood-sucking flies and the odd nosey researcher". Frogging adventures in South America.

Arthur White: Those strange amphibians called caecilians.

Phillip Grimm: Launch of FATS new web site.

**9.00 pm** Show us your frog images, tell us about your frogging trips or experiences, guessing competition, continue frog adoptions, supper & a chance to relax and chat with frog experts.



## LAST FATS MEETING 3<sup>rd</sup> FEBRUARY 2012

Radu Zamfirescu (below left) spoke about the Smiths Lake field trip in late 2011. Radu and Adriana's photos appear on pages 3 and 4. At the field trip, in addition to Radu and his fiancée Adriana Frasineanu, were Arthur (below right) and Karen White, both leading the field trip, Grant Webster, Barbara Bohdanowicz, Andrew Nelson, Rainer Enke, Punia Jeffery, Louise Egerton, Mark, Jaine, Joel and Paul Cassar and Luc and Jilli Streit.

Participants listed a large number of birds observed or heard, including Superb Fairy Wren, Rufous Whistler, Noisy Friarbird, Silvereye, Welcome Swallow, New Zealand Fantail, Southern Figbird, Lewin's Honeyeater, Brown Cuckoo Dove, Little Lorikeet, Sooty Oystercatcher, Eagles, Koels, Thornbills and many more. Kangaroos, bandicoots, turtles and possums were seen or heard.



Radu Zamfirescu & Arthur White, Smiths Lake 2011

Frogs observed at Sandbar Quary, Sugar Creek and around the field station included *Crinia tinnula*, Striped Marsh Frog, *Litoria fallax, Lt. Tyleri, Lt. peronii, Lt. latopalmata, Lt. revelata, Lt. freycineti, Adelotus, Uperolia fusca* and *Pseudophryne coriacea*.

Those who attended our meeting saw a yet to be released ABC, Cane Toad video of The Shire.

Arthur White spoke about frogs of Japan and Nawate "Frog" Street near Matsumoto Castle which is a short pedestrian shopping street on the north side of the Metoba River, just east of the Sensai Bridge. It is lined with craft shops and is a pleasant stroll and place to browse.

Arthur also spoke about Woonona, the Green and Golden Bell Frog recovery programs and the ongoing challenges there. The developer, Council, NSW NPWS, Taronga and Arthur White have worked hard to restore habitat for the breeding population the GGBF at this site. See http://www.taronga.org.au/naws/2012\_01\_18/davaloper\_halps

http://www.taronga.org.au/news/2012-01-18/developer-helpsrare-frogs-back-woonona-wild



Our newest frogophile member.....Lothar Voigt's 4<sup>th</sup> grandchild, Merinda's and Kate's baby, Mathilda ("Tilla"). Attempting her first frog call?

## 2012 FROG-O-GRAPHIC COMPETITION

A ll Fats members are urged to start taking lots of frog photos, indulge in frog drawings or frog art and submit up to six entries in the competition. You may win fabulous prize and have your entry included in next year's Fats calendar. There are separate prizes for frog images, frog artwork, most interesting frog images at both senior and junior levels. In addition, there will be a People's Choice award that will be decided at the October meeting.

To enter you need to submit a medium quality electronic image of your entry to Arthur White at **1arthur@tpg.com.au** Entries close on the 31<sup>st</sup> of August. For junior members, please also state your age along with your contact details. **Arthur White** 

## AMPHIBIAWEB

A mphibiaWeb has a new taxonomy! You can read more about AmphibiaWeb Taxonomy 2.0 on our updated Taxonomy page.

AmphibiaWeb 2.0 is the result of in-depth studies of the current literature dealing with amphibian phylogenetics and taxonomy by a multi-institutional working group of taxonomic experts. From time to time, the taxonomy will be updated, as warranted, based on new analyses and publications. Comments are welcomed. We also solicit assistance in writing family and species accounts from specialists. http://amphibiaweb.org/

## **ROYAL EASTER SHOW 2012**

**F**ATS will not be at the Royal Easter Show this year, however some of our members will be at the former cat pavilion on the 17<sup>th</sup> and 18<sup>th</sup> of April, along with reptiles, frogs of course and other herpetological pets.



Tyler's Tree Frog (*Litoria tyleri*)







Peron's Tree Frog (Litoria peronii)



Twas brillig and the slithy toves

Did gyre and gimble in the wabe

All wimsy were the borogives

Beware the Jabberwock my son The jaws that bite the claws that catch Beware the Jubjub bird and shun the frumious Bandersnate

Most photos on p2 & p3 by Radu Zamfirescu or Adriana Frasineanu

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JAbbERWocky



Dusky Toadlet Uperolia fusca



Whirring Tree Frog (Litoria revelata)



Red-Backed Toadlet Pseudophryne coriacea Above and two photos below



Whirring Tree Frog (Litoria revelata)





## **TOGETHER AT LAST: FATS AND ANGFA**



Joint field trip on 12.2. 2012 to my place Upper Colo. Bridge gone under.

L to R: Wendy, my shoes, Andrew, Michael, Mark, David, Danny, Roman, Punia, Phillip, John.



Barn with released snakes and ladders. Too wet for catching fish and frogs. A goo

*Great pizzas and great company. A good time was had by all.* **L.V.** 

## TOGETHER AT LAST: FROGS AND REPTILES

t the next meeting FATS will have both frogs and some reptiles for sale. As it turned out, the police wanted to see someone who had left his flat in a hurry and who had also left some animals behind: 17 Striped Marsh Frogs, 7 Bynoe's Geckos and one Eastern Water Skink. National Parks placed them with FATS for the time being and later gave us permission to sell them to licenced members. The sum will be nominal and most modest. So, if interested and if you have a joint licence that includes frogs and reptiles (that's 2 x \$63, see http://www.environment.nsw.gov.au/resources/wildlif elicences/AnimalKeepersApplicationForm.pdf) then bring it with you. Because of the special circumstances, FATS will need to notify Environment and Heritage of your licence details, so that they can check them and approve. L.V.



Bynoe's Gecko on Lothar's hand

## FROG FOOD FAVOURITES

The good thing about keeping frogs is that you get to keep all those lovely insects as well. But which ones should you lavish your time and your money on? Unless you catch your own, your choice is probably limited to crickets, woodies, mealworms and flies, at least for the medium-sized and larger frogs. There have been articles in *FrogCall* on raising and keeping those delicacies, but we have never given much clue on which is better, safer or more convenient. Well, here is one opinion.

Green and Golden Bell Frog Litoria aurea



Photo by Ben Brown

Did you set up your frog cage first, with feeding as an afterthought? Did you plant the cage up nicely and then put some woodies in? And did you watch the plants getting eaten up by the woodies and their numerous descendents? You may also have watched those tiny descendents running up to the lid and out through the airholes. Into the kitchen. Or worse still, right into the next cage, maybe spreading frog disease from one cage to the other. But you must admit, they did polish off much of the dirt and dead insect bodies, and they left the cage cleaner than when they found it. Apart from those that drowned in the frogs' water area and completely polluted it.

A few simple solutions: One is don't put any woodies in. Put the frog in with the woodies overnight, in a mostly bare feeding cage with a slightly damp sponge for the frog. Or, if you have the time, put that woodie in alright but on plastic tweezers and handfeed the frog. Or, dump them all in if you have ground frogs that can't get to the Vaseline strip you have to smear around the top under the lid. And no live plants, not much open water and not too much sogginess. Your frogs will be growing their own food that lives partly on the frogs' droppings and on other gunk in the cage.

What if your nicely planted cage has a few stray crickets that the frogs can't reach? Frogs seem to be keener on crickets than on anything else; they are likely to stay alert until the last cricket is found. And crickets are easier than woodies on live plants, and they sing nicely. Their best feature: They can't climb up the glass. (If a few manage to shimmy up the corners, stick a short length of clear adhesive tape somewhere over the silicone seam and watch them slide down again.) Just don't let them get within reach of the flyscreen in the lid, just as with woodies. (They all bite through nylon flyscreen; they all tempt frogs to jump at them even if they're sitting underneath metal flyscreen that can scrape the frogs' noses raw.)

The big downside is that crickets die easily, from getting soggy and from getting their legs pulled out by other adult crickets unless they are well spaced out. No wonder adult crickets don't last nearly as well as half-grown ones. Crickets are harder to transport, harder to store, and certainly more bothersome to breed than woodies – and a pest to keep the ants out. Worst of all, they jump right into the water and turn it into a rotting broth. (The only reason frogs die so persistently and predictably from overfeeding: knee-deep in putrid insect corpses!) But maybe you have a dry frog cage with only a dripping trickle, or an elaborate filter system that is able to remove dead crickets, or a water area covered in thick floating plants - maybe with a couple of catfish underneath, in an aqua-terrarium, to gobble up any extra stupid crickets. All these strategies work, by the way, but sometimes it's easier to resort to the separate feeding cage.

And now comes ze vondervorm. The mealworm. A "worm" that can be served in any smooth bowl and can't climb out; that couldn't even get out of one of those pet shop frog cages that have gaps and holes everywhere. They're fine as long as you keep the worm bowl in a dry spot in the cage. But mealworms are tough and fatty little things. Like the other frog foods, they should be vitaminised and/or gutloaded and should be served with other foods in rotation. Maybe after the feeding cage, the frogs should go back to their residential cage together with a bowl of mealworms to keep them topped up.

#### Green Tree Frog Litoria caerulea



Photo by Vicki Deluca who was the mystery (unknown) photographer in Frogcall 117

Mealworms are by far the cheapest of the frog foods. They last for months with minimal care, and they breed very slowly but very surely. With some basic care, they are unlikely to pollute the water or to spread frog diseases into the next cage or into your garden. (You do dispose of waste from the mealworm bowl and from the frog cage thoughtfully, don't you, and not into the garden, do you?)

*Litoria fallax* Photo Gina Morris



With mealworms you also have to keep the ants out, and moisture, and if you're allergic to them, also your face and your fingers. Because some people can be allergic to them in a big way – as this one well knows.

Lastly, the house flies. Kitchen flies, unless your cage is flyproof, so you'd need to attend to that. Maybe better to use a feeding cage for them, too. But for many years I had a great frog aqua-terrarium with archer fish and rainbow fish (they also like flies) and on land mostly fake plants and a few woodies and sometimes crickets, and a topping-up mealworm bowl. The flies kept the frogs moving, the drowned ones were dealt with by the fish, the corpses on land by the woodies. What I had to remember was to give the tank's front glass and land area a good spray cleaning before I let the next lot of flies loose inside.

House flies are a conundrum food. Although frogs from around 16 mm up to Cane Toad size go after them, they can be deadly for small tree frogs – frogs that are small enough to climb in with the pupae through the hatching hole. If they get covered in pupae, they quickly dry up. A simple solution is to stand guard over the hatching hole and close it up when enough flies are in the cage – which probably takes two minutes. It's quicker if you use two cups stuck inside each other, with a hatching hole going through both, and if you then rotate the inner cup to close it off. With the styro cups poking halfway through a large enough hole in the cage lid, you can do that all from outside – no flies escaping and no cross-contamination of cages with your hands!

They may also be a conundrum if you have sick frogs. If you let a few flies from such a tank escape, they could then sit with their contaminated feet on the flyscreen of the next cage, or even get to your garden and your frog pond and beyond. So, although they are a convenient food for handsoff quarantine cages, unless you can completely contain the flies – better not use any on frogs that might be sick. There are a few basic ideas that touch on frog feeding in *FrogFacts* 6 and 8 (which you can read in the publications section of <u>www.fats.org.au</u>).

Has anyone come to other conclusions? Or found an efficient way of feeding lots of frogs while keeping the cage nice and clean? Any experience with ensuring that chytrid doesn't get spread with the food? Anyone else around with mealworm allergy? And what about all the other frog foods? How does it work feeding frogs outdoors, or in your bathroom – any takers? Anyone with useful experience with tubifex, maggots, caterpillars, springtails, worm farm contents, meadow plankton or anything else of interest to frogs? So, I just wrote in to *FrogCall*. Why don't u2? **Text reprinted from FrogCall 83, by LotharVoigt** 



Leo and his new Green Tree Frogs, Litoria caerulea

## FATS FACEBOOK FRIENDS

**F**ATS has about 222 Facebook friends and has had a great deal of commentary on the page from a diverse group of frog enthusiasts in Australia and overseas.

**Bangladesh** will have 25 events to celebrate Save The frogs day on 28 April. Why not run an event at your school, office or neighbourhood?



## HOSPITAL HERO?



A living germ killer ... a green and golden bell frog at Taronga Zoo. It belongs to a species which secretes chemicals that can kill bacterial strains resistant to antibiotic drugs. Photo: Nick Moir

## Nický Phillips SCIENCE

NUCLEAR scientists are using native frogs to thwart hospital superbugs in work that sounds more like the plot of a sci-fi thriller than legitimate research.

Sydney and Melbourne scientists are studying several species of Australian frogs – including the green-eyed tree frog and the green and golden bell frog – whose skin secretions are toxic to a range of bacteria, including multi-drug-resistant golden staph know as MRSA.

Antibiotic-resistant bacteria can occasionally be fatal and have become a global public health

problem. Antimicrobial compounds known as peptides found in the milky secretions of some frogs may be a wonder drug.

The research leader, Frances Separovic, a biophysical biologist, said most antimicrobial peptides killed bacteria by puncturing or lysing (causing them to disintegrate) their membranes. This made it hard for bacteria to develop resistance to them, Professor Separovic, chemistry head at Melbourne University, said. <snip> "By understanding the peptides' 3D structure and mechanism of action at a molecular level, we may be able to increase their antibiotic potency," she said.

Dr Le Brun said the team studied synthetic chemical versions. "I can assure you no frogs were harmed in these experiments."

SMH March 17-18, 2012

So, a frog in your throat might be good for your tonsilitis after all. You may need to pull it up and down a few times, three times a day, as a prescription item. Frogs might even cure your warts, who knows? And kissing them should have health benefits too, at least for us! L.V.

## **INTERESTING AND / OR CONTRAVERTIAL FROG WEB SITES**

Ecowatch: http://ecowatch.org/2012/critical-habitat-designated-for-threatened-chiricahua-leopard-frog/

Critical Habitat Designated for Threatened Chiricahua Leopard Frog Golf course frogs:http://ecowatch.org/2012/golf-course-caught-killing-endangered-frogs-and-tampering-with-evidence-again/

http://www.abc.net.au/aplacetothink/html/cane\_toads.htm

http://en.wikipedia.org/wiki/Cane\_Toads: An\_Unnatural\_History 9 June 1988 (Australia), Written and directed by Mark Lewis

http://www.canetoadstheconquest.com/ http://www.abc.net.au/atthemovies/txt/s3215306.htm

http://www.abc.net.au/tv/programs/canetoads.htm doco The Conquest the sequel

http://www.abc.net.au/7.30/content/2012/s3401592.htm North quoll threatened by CT



MICHELLE O'HARE & TIDDALIK VISIT MISS GARLICK & WILLIAM DEAN PUBLIC SCHOOL



A bout 60 year 1/2 children and their teachers, were very happy to see Michelle O'Hare and Tiddalik, the FATS, Green Tree Frog, on the 9<sup>th</sup> of March 2012, at school. The classes were working on 'Growing and Changing'. The unit looks at life cycles and how things change over time (including us!) Before, during and after the school visit, there was talk about the life cycle of a frog, immersing the girls and boys in frog information. Many of children may have never seen a frog in real life, let alone understand the important role they play in our environment. Michelle asked if they thought any frogs lived in the areas around their school.





Michelle placed pictures of local frogs on the class smart board, which caused great excitement. The children and teachers enjoyed Michelle's talk immensely. FATS are very appreciative of the work done by Michelle and Vicki Deluca in organising the visit. The children could not stop talking about frogs.



Miss Garlick believes they understand a little bit more about the important role frogs play in our environment. They hope to see Michelle and Tiddalik again one day. The school thanked FATS. **Monica Wangmann** 'Plant a Tree Today - 'Our wildlife need them!' (class teacher's email motto)



## THE FROG OF WAR (extracts)

When biologist Tyrone Hayes discovered that a top-selling herbicide messes with sex hormones, its manufacturer went into battle mode. Thus began one of the weirdest feuds in the history of science.



Annie Tritt photo.

The frog depicted here isn't *Xenopus laevis*, but another species studied in Hayes' lab. Darnell lives deep in the basement of a life sciences building at the University of California-Berkeley, in a plastic tub on a row of stainless steel shelves. He is an African clawed frog, *Xenopus laevis*, sometimes called the lab rat of amphibians. Like most of his species, he's hardy and long-lived, an adept swimmer, a poor crawler, and a voracious eater. He's a good breeder, too, having produced both children and grandchildren. There is, however, one unusual thing about Darnell.

## He's female.

Genetically, Darnell is male. But after being raised in water contaminated with the herbicide atrazine at a level of 2.5 parts per billion—slightly less than what's allowed in our drinking water—he developed a female body, inside and out. He is also the mother of his children, having successfully mated with other males and spawned clutches of eggs. Recently he was moved to an atrazinefree tank and has turned lanky, losing the plump, pincushion look of a female frog. But last March, when UC-Berkeley integrative biology professor Tyrone B. Hayes opened him up to take a look, Darnell's insides were still female. "He still has ovaries, but there's no eggs in them," Hayes told me the next day as we stood watching the frog, who swam over and inspected us soberly, then turned and flopped away.

SNIP "Atrazine isn't killing the frogs," Hayes explains. "But if they're reproductively impaired, that's killing the population."

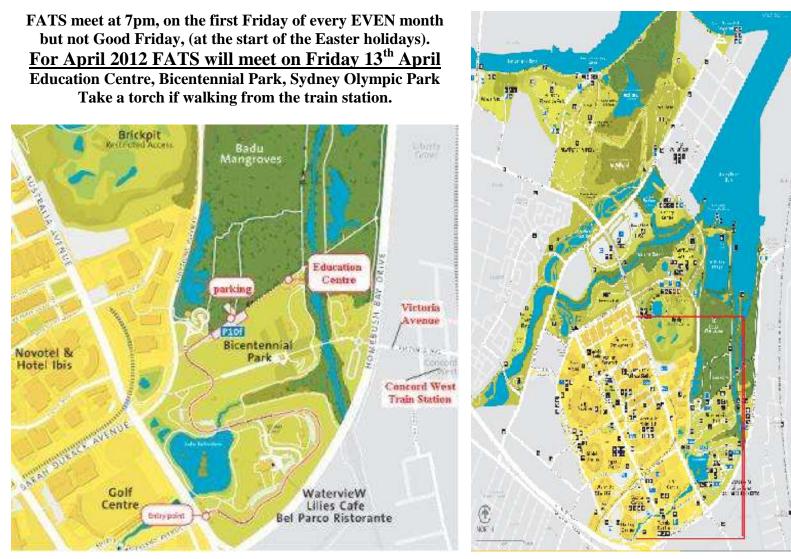
All of this has earned Hayes something approaching rockstar status. He has been the subject of a children's book (The Frog Scientist), travels the world giving lectures, and by his estimate has appeared in a dozen documentaries. And while scores of researchers have described atrazine's worrisome effects, it is Hayes' knack for drama that has brought attention to the problem. Without him, atrazine might not be undergoing its third Environmental Protection Agency review in less than a decade, and Syngenta, the chemical's Swiss manufacturer, might not be facing lawsuits in state and federal courts by plaintiffs from 40 Midwestern water districts who claim atrazine has contaminated their drinking water. "He's a remarkable person," says David Skelly, a Yale ecologist who has served on two of the advisory panels that help the EPA vet atrazine research. "And he's become the personality associated with this issue because he's a remarkable person." SNIP Despite Syngenta's claims to the contrary, atrazine's feminizing effects are documented in dozens of peer-reviewed, reputable studies. SNIP

Hayes is working on several new papers, including one he contends will be his most disturbing yet. It will show that male frogs exposed to atrazine early in life have feminized brains and tend to assume the bottom position when copulating, even when placed in a tank with females. While these frogs lack female sex organs, Hayes explains, their hormonal profile looks female, and "they have an identity that says female."

The last time we spoke, Hayes was getting ready to shoot Syngenta an email announcing his upcoming publications. "I think it'll just be informative," he told me. "Just to let them know. That's why they call me Tyrone."

By Dashka Slater Jan / Feb 2012 Issue Sent to FATS by FATS Facebook Friend, Barb Tyler, http://motherjones.com/environment/2011/11/tyr one-hayes-atrazine-syngenta-feud-frogendangered?page=3





Thank you to the many Frograll supporters. Your articles, photos, media clippings, webpage uploads, membership administration, mail-out inserts and envelope preparation is greatly appreciated. Special thanks to regular newsletter contributors, including

Lothar Voigt, Robert Wall, George Madani, Karen & Arthur White, Wendy & Phillip Grimm,

Grant Webster, Marion Anstis, Andrew & David Nelson and Bill Wangmann.

**INSURANCE DISCLAIMER** FATS has public liability insurance for its various public functions. This insurance does not cover FATS members; it covers the public and indemnifies FATS. We are currently checking with insurance firms to see whether a realistic group policy can be organised to cover FATS volunteers and people who attend field trips.

**FATS MEETINGS** commence at 7 pm, (arrive 6.30pm) and ends about 10pm at the Education Centre Bicentennial Park, Sydney Olympic Park, Homebush Bay and are usually held on the <u>first Friday of every EVEN month</u> February, **April, June, August, October and December (but not Good Friday).** Call, check our web site or email us for further directions. Easy walk from Concord West railway station and straight down Victoria Ave. Take a strong torch in winter. By car: Enter from Australia Ave at the Bicentennial Park entrance and drive through the park (one way road) turn off to the right if entering from the main entrance or enter from Bennelong Rd/Parkway. It's a short stretch of 2 way road and park in p10f car park (the last car park before the exit gate). See map

We hold 6 informative, informal, topical and practical free meetings each year. Visitors are welcome. We are actively involved in monitoring frog populations, other field studies; produce the newsletter FROGCALL and FROGFACTS information sheets. All expressions of opinion and information 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. Material from FROGCALL MAY NOT BE REPRODUCED without the prior consent of the writer, photographer, Editor or President of FATS. Permission from FATS and/or author/s must be obtained prior to any commercial use of material. The author/s and sources must be always fully acknowledged.

#### STREWTH THE FROGS OF WAR

ABOR leadership speculation now permeates everything, to the extent you can find metaphors in the unlikeliest places. For example, Keeping Frogs (Australian Reptile Keeper Publications, 2005), a slender tome Strewth has been perusing for benign purposes, only to stumble repeatedly on reminders of ALP turmoil. Take this description of the call of the white-lipped frog: "Can deaden the sound of conversation or television, and the neighbours will be deafened too. The male's calls will possibly drive you insane, but he does stop once spawning is achieved, and thankfully will be silent until next spawning time." As is also noted, "Can be cannibalistic." Or the red-eyed tree frog, which sounds a bit like Kevin Rudd's new YouTube hit: "Alternates between gentle trills and long mournful 'aaaark . . . aaaark', usually after rain." Peron's tree frog: "A really maniacal cackling on a descending scale; sure to terrify visitors who haven't heard it before." More poignantly, the southern brown tree frog suggests this won't end well: "A melodious 'weep, weep'." As does the great barred frog: "Varies within the group from deep grunts or a sad chorus of 'Aaaaaaah'." And perhaps most appositely, the song of the spotted marsh frog: "Every bit as maddening as an ancient Chinese water torture." Here endeth Strewth's sealed spawnography section.

**By STREWTH! JAMES JEFFREY The Australian** http://www.theaustralian.com.au/news/opinion/the-frogs-ofwar/story-e6frgdk6-1226277577699

FESTIVAL OF WILDFLOWERS, KU RING GAI 26 AUGUST 2012 FATS needs your help

Our frog group are well represented at this major and fun event. The Festival of Wildflowers has drawn larger crowds every year and we need assistance at the frog stall and at the dip netting for tadpoles activities. Please contact Wendy Grimm if you are able to help us. Make yourself known to her at the next FATS meetings in April or June.

President

Secretary

Treasurer

Chairperson

Web Master

Editor

Membership Officer

Publicity Officer

**Exhibitions Officer** 

Field Trips Coordinator

Facebook Administrator

**Committee Member** 

Vice President

### **FIVE LANDS WALK**

http://www.5landswalk.com.au/ 02 4343 4444 or email info@5landswalk.com.au Green & Golden Bell Frog Display 2011

**T**orth Avoca is one of only a few locations left where the Green and Golden Bell frog continues to exists and breed. In 2011 FATS had experts including Arthur White, on hand for the day to advise what you can do to help preserve this endangered species.

A very lucky Green Tree Frog Litoria caerulea in care with Nick.



## FROGWATCH HELPLINE 0419 249 728

## FATS CONTACTS

Arthur White Andre Rank Wendy Grimm **Punia Jeffery** Karen White Andrew Nelson Vicki Deluca Sheila Briffa Robert Wall Marion Anstis Alistair MacDougall Assistant Web Master Phillip Grimm Lothar Voigt Monica Wangmann

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Please send articles for the FrogCall newsletter to 38 Albert Pde Ashfield NSW