

# FROG CALL

THE FROG AND TADPOLE STUDY GROUP NSW Inc.  
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NEWSLETTER No. 137 June 2015

Photo by Jason Luke endangered *Mixophyes iteratus*



Arrive 6.30 pm for a 7pm start.

## Friday 5<sup>th</sup> June

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.

### Meeting Format Friday 5<sup>th</sup> June 2015

- 6.30 pm** There are lost frogs (*Litoria caerulea*, *L. infrafrenata*, *L. peroni*) needing forever homes available to FATS financial members. Please bring your FATS membership card and cash \$40 - \$50 donation. Your current NSW NPWS amphibian licence must be sighted on the night. Rescued frogs can never be released. Sorry we have no EFTPOS. Please contact Monica before the meeting to confirm your interest in adopting a rescued frog.
- 7.00pm** Welcome and announcements.
- 7.30 pm** The main speaker: Grant Webster, talking about problematic species *Pseudophryne bibroni*. "the many forms of the Little Brown Brood Frog". Arthur White will speak about Frog Sounds and Frog Hearing.
- 9.15 pm** Show us your frog images, tell us about your frogging trips or experiences. Guessing competition, continue with frog adoptions, supper and a chance to relax and chat with frog experts.

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*Litoria verreauxi verreauxi*



Photo by Aaron Payne Whistling Tree Frog

### LAST FATS MEETING 3 APRIL 2015

**M**arion Anstis warmly welcomed us all with a special welcome to new members and visitors. She mentioned, as usual, that the FATS group has no commercial interests. Our purpose is amphibian conservation and information.

Our main speaker, Josie Stokes from the NSW Roads and Maritime Service gave a lively account of the changing fortunes of Green and Golden Bell Frog in the Shoalhaven Local Government Area; literally 'boom bust boom'. In years of low rainfall the frogs are in core breeding areas. Heavy rains bring flooding and frogs breed in a wide variety of habitats. In November 2011 the \$62 million South Nowra Princes Highway Upgrade was delayed when Green and Golden Bell Frogs were found at the project site.

Today, thanks to a major management plan, the frogs now have specially constructed habitat ponds and culverts. A present study with individual surveys in the active season is ongoing. There are still fluctuations in numbers. 2013 and 2014 have seen declines. This means of course, that it is essential to maintain the core breeding sites. And, to all who think they know their frogs; Josie has evidence that the ubiquitous Eastern Froglet can climb exclusion fences!

Arthur White's talk on the Mantellas of Madagascar was, as always, full of interesting images and facts. These endangered frogs, regarded as some of the most beautiful in the world are favourites with amphibian keepers. Habitat destruction threatens many species with extinction. Many are poisonous, red and yellow, others, similarly coloured mimic species, are non-toxic. Like several Aussie species, they are terrestrial breeders. The tadpoles feed on algae and mosses.

Jilli Streit's report on the last Smiths Lake field trip had her magic touch. It was a lovely production of frogs, birds, the lake, forest and Seal Rocks.

Punia Jeffery gave a summary of two very good days that FATS had at the Easter Show. Kathy Potter, with splendid efforts and attention to detail, created the most beautiful display terrariums. We had eleven Aussie species and a Cane Toad on show. On both days there was a steady stream of enthusiastic people to look and learn more about them.

Chocolate bilbies and frogs were the main raffle prizes. Then as ever, a great supper - thanks to Karen White and good conversation ended the meeting. **Punia Jeffery**



### FATS AT THE ROYAL EASTER SHOW 2015



**F**rogs and reptiles were on exhibit for the last two days of the Sydney Royal Easter show 2015. FATS were visited by hundreds of people on 7 & 8 April. Many thanks to our members especially Kathy, Sarah, Harriet and David Potter, Vicki Deluca, Punia Jeffery, Jilli Streit, Karen and Arthur White and Marion Anstis (hopefully no-one has been forgotten) who assisted as frog explainers.

The FATS frog collection will be busy again this year travelling about to many exciting events in and around Sydney, so if you are in the neighbourhood drop by and say hello, or if you would like to help out contact Kathy Potter at [kathy@the-pottery.org](mailto:kathy@the-pottery.org) Details of events are on our web site.

<https://au.news.yahoo.com/vic/video/watch/27005133/reptile-competition-at-easter-show/>

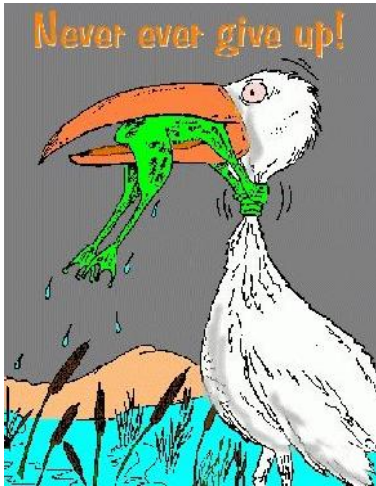
<http://www.dailytelegraph.com.au/news/nsw/girls-find-they-love-the-beasts-that-creep-and-crawl-at-the-sydney-royal-easter-show/story-fni0cx12-1226892726176> photo above

<http://www.sydneyroyal.com.au/775.htm>

<http://www.wildexpo.com.au/default.htm> MW

## FATS AGM NOTICE FRIDAY 7<sup>th</sup> August 2015

**T**he FATS AGM will be held on 7/8/2015, 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. We 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**



### 2015 FATS FROG-O-GRAPHIC COMPETITION

**I**n 2008 FATS conducted our first Frog-O-Graphic competition. This proved very successful as we have many creative people in the group who take marvellous photos, do incredible drawings and art works, can sculpt, potter or create frog do-dahs from just about anything. So start painting, drawing, photographing or whatever you do to capture the essence of a frog. We look forward to seeing your entries.

### FATS members Frog-O-Graphic competition opened 1st May 2015 & closes 31st July, 2015

**9 Categories** Junior and Senior Best Frog Artwork (send photo), Junior and Senior Best Frog Image, Junior and Senior Best Pet Frog Image, Junior and Senior Most Interesting Image. Category winners to be decided by a panel of judges. **People's Choice** will be decided by everyone present at our 4<sup>th</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 and contact phone number. Maximum six 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 colour in Frogcall and other FATS publications. **Arthur White**



Arthur and Karen White at home – photo Jill Streit

### SEEKING COMMENTS ON LONG LIVED PET FROGS



Monica & Matey (about 1995 – 2015) Photo SMH 1/2012

**I** am interested in any information and photos you have on long-lived pet frogs, possibly to use in a short article in Herpetofauna or Frogcall. Please send information and photos to [monicawangmann@gmail.com](mailto:monicawangmann@gmail.com). Photos no greater than 3 MB. Max number of photos 3. Maximum text 200 words. Please include your name, contact details and whether you wish to be identified or anonymous. **Thanks MW**



Photo David Nelson Tasmanian Tree Frog *Litoria burrowsae*



Christian Hofmann's Pet Green Tree Frog Benson *Litoria caerulea*

### NEWEST FATS MEMBER, TADPOLE OLIVIA

**H**annah D'eau gave birth to beautiful baby girl Olivia Therese D'eau on 1st February 2015. Hannah has been a dedicated FATS member since attending a frog and reptile course taught by Arthur White a number of years ago. She loves attending field trips, especially Smiths Lake. She also adopted 2 Green Tree Frogs from FATS a few years ago who now have a little sister!

Both mum and bub are doing well :) **Michelle Toms**



## GLYPHOSATE CLASSIFIED AS PROBABLY CARCINOGENIC

**L**yon, France, 20 March 2015 – The International Agency for Research on Cancer (IARC), the specialized cancer agency of the World Health Organization, has assessed the carcinogenicity of five organophosphate pesticides. A summary of the final evaluations together with a short rationale have now been published online in The Lancet Oncology, and the detailed assessments will be published as Volume 112 of the IARC Monographs. What were the results of the IARC evaluations? The herbicide glyphosate and the insecticides malathion and diazinon were classified as probably carcinogenic to humans (Group 2A). <http://www.iarc.fr/en/media-centre/iarcnews/pdf/MonographVolume112.pdf>

## BATRACHOCHYTRIUM SALAMANDIVORANS

**L**ast week SAVE THE FROGS! along with the Center for Biological Diversity petitioned the US Department of the Interior for an emergency moratorium on the importation of salamanders into the USA unless they are certified free of the chytrid fungus *Batrachochytrium salamandivorans*.

This newly discovered chytrid fungus causes high mortality in salamanders and is likely to cause massive damage to American salamander populations if allowed to enter the country. The most likely route of entry is through the largely unregulated importation of pet salamanders.



Eastern newt photo courtesy Wikimedia Commons / Patrick Coin.

The United States has yet to implement any regulations to control the entry of either *Batrachochytrium dendrobatidis* or *Batrachochytrium salamandivorans*. In 2010, SAVE THE FROGS! sent letters to the USFWS urging them to ban the importation of all amphibians into the USA and across state lines unless certified free of *Batrachochytrium dendrobatidis*. <http://www.savethefrogs.com/> [http://dotearth.blogs.nytimes.com/2015/05/15/pressure-builds-for-swift-u-s-action-against-spreading-salamander-threat/?smid=tw-share&\\_r=2](http://dotearth.blogs.nytimes.com/2015/05/15/pressure-builds-for-swift-u-s-action-against-spreading-salamander-threat/?smid=tw-share&_r=2)

## CLIMATE CHANGE RISK TO 'ONE IN SIX SPECIES'



Amphibians face a number of threats to their survival

**O**ne in six species on the planet could face extinction if nothing is done to tackle climate change, analysis suggests.

If carbon emissions continue on their current path - and temperatures rise by 4 degrees - 16% of animals and plants will be lost, according to a review of evidence. The study, published in *Science*, shows risks are highest in South America, Australia and New Zealand. Previous estimates range from 0 to 54%.

Dr Mark Urban of the University of Connecticut, US, analysed data from 131 scientific studies on the risk of extinction from climate change. **Many species will be able to shift their ranges and keep up with climate change whereas others will not** Dr Mark Urban, University of Connecticut

He found that the rate of biodiversity loss is likely to speed up with each degree Celsius rise in temperature. If future temperatures rise by 2 degrees compared with pre-industrial times, global extinction risk will rise from 2.8% today to 5.2%. But under the scenario where global warming continues on its current path, 16% of species (one in six) face extinction. "If the world does not come together and control greenhouse gas emissions and we allow the Earth to warm considerably we will face a potential loss of one in six species," said Dr Urban. "Many species will be able to shift their ranges and keep up with climate change whereas others will not either because their habitat has disappeared or because they can't reach their habitat anymore."

**Unique habitats** Higher extinction risks are predicted for Australia, New Zealand and South America, where there are many species adapted to live in habitats not found elsewhere.

Commenting on the research, Prof John J Wiens of the University of Arizona, said the global extinction risk from climate change might be even higher than 16%, as the majority of studies analysed were from Europe and North America, where extinction risks are lower. "In South America, the extinction risk was estimated to be 23%," he said. "Unfortunately, this higher number might better reflect the number of species that might go extinct due to climate change globally, if we consider how the world's species are distributed." Dr Mike Barrett, Director of Science and Policy at WWF-UK, said the findings echoed its Living Planet Report, which found that populations of vertebrate species have halved since 1970. "This report looks forward and finds that many species are threatened with extinction if we fail to tackle climate change."

<http://www.bbc.com/news/science-environment-32532518> sent by Andrew Nelson written by Helen Briggs BBC Environment Correspondent Science & Environment



Societas Europaea Herpetologica Conservation Committee [www.greenhumour.com](http://www.greenhumour.com)



Madagascar *Aglyptodactylus laticeps*, at Kirindy



Photo by Henry Cook

**HERPDIGEST.ORG: The Only Free Electronic  
Newsletter That Reports on the Latest News on  
Herpetological Conservation, Husbandry and Science  
Publisher/Editor- Allen Salzberg**

**DEADLY FROG FUNGUS DATES BACK TO 1880s**

**A deadly fungus responsible for the extinction of more than 200 amphibian species worldwide has coexisted harmlessly with animals in Illinois and Korea for more than a century, a pair of studies have found.**

Amphibians in Illinois have been coexisting with the fungus *Batrachochytrium dendrobatidis*, or Bd, for at least 126 years without adverse effects seen in other parts of the world such as mass-die offs, according to research published 13 Jan. in the journal *Biological Conservation*. In a study published 4 March in *PLOS ONE*, researchers were able to date the fungus in Korea back to 1911. The results will help scientists better understand the disease caused by Bd, chytridiomycosis, and the conditions under which it can be survived.

"Part of understanding a disease is understanding the dynamics of the host and pathogen," said Vance Vredenburg, an associate professor of biology at San Francisco State University and co-author of the studies, who has been researching Bd for more than a decade. "What we have now is a benchmark where the dynamics have been stable for well over 100 years." Before the new study, the earliest confirmed instance of Bd was in Brazil during the 1890s. The discovery in Illinois also dates back 50 years earlier than previous instances for North America.

Chytridiomycosis, or chytrid, has driven more than 200 amphibian species worldwide to extinction and poses the greatest threat to vertebrate biodiversity of any known disease. Vredenburg has tracked the spread of the disease since 2003 in such places as the Sierra Nevada and Andes mountains, including identifying such common carriers as the African clawed frog, the American bullfrog and Pacific chorus frog. Human transportation of these animals is one way to explain how Bd -- and the resulting disease chytridiomycosis -- is introduced to new populations, sparking mass die-offs.

"This fungus has been emerging all over the world and causing major, major problems," Vredenburg said. "Taking the information we now have from this research, we can look at the animals in Illinois and Korea, figure out how they are surviving and translate that knowledge to other parts of the world where we see massive declines of amphibian populations."

One key difference in the two studies is that, while testing showed that Bd was widespread in Illinois dating back to the 1880s, the disease was far less common in Korea during the 1900s than it is today. That, Vredenburg said, indicates that the behaviour of the fungus differs depending on location, a key piece of information for biologists to keep in mind when studying its spread.

The study also validates the effectiveness of testing for Bd in museum specimens, which a graduate student, Tina Cheng, pioneered at SF State. Some of the museum specimens are more than 100 years old, prompting concerns that older DNA

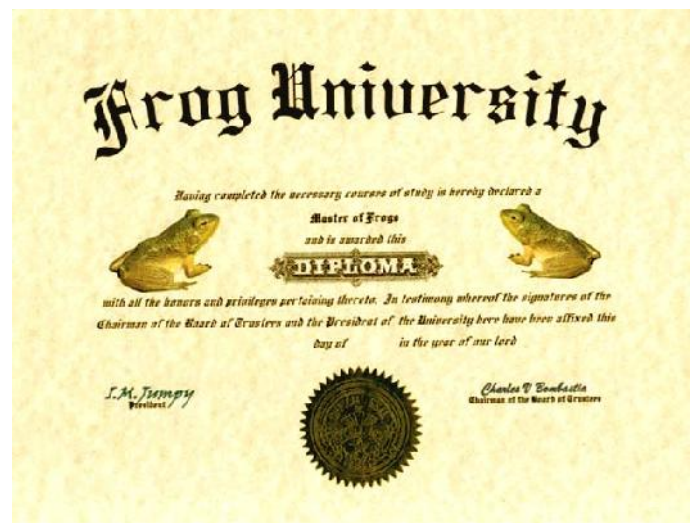
may have degraded, leading to "false negatives," but Vredenburg and his colleagues found the fungus on some of the oldest samples available. During the two studies, researchers tested more than 1,200 amphibian samples collected between 1888 and 2004.

The next step, Vredenburg said, is to pinpoint which attributes allow Illinois-area and Korean amphibians to co-exist with the fungus so that biologists can use that information in their efforts to study this disease in other parts of the globe and prevent further extinctions. **The above story is based on materials provided by San Francisco State University.**

Journal References: Brooke L. Talley, Carly R. Muletz, Vance T. Vredenburg, Robert C. Fleischer, Karen R. Lips. A century of *Batrachochytrium dendrobatidis* in Illinois amphibians (1888–1989). *Biological Conservation*, 2015; 182: 254 DOI: [10.1016/j.biocon.2014.12.007](https://doi.org/10.1016/j.biocon.2014.12.007)

Jonathan J. Fong, Tina L. Cheng, Arnaud Bataille, Allan P. Pessier, Bruce Waldman, Vance T. Vredenburg. Early 1900s Detection of *Batrachochytrium dendrobatidis* in Korean Amphibians. *PLOS ONE*, 2015; 10 (3): e0115656 DOI: [10.1371/journal.pone.0115656](https://doi.org/10.1371/journal.pone.0115656)

**Volume # 15 Issue #14 3/5/15 extracts  
Publisher/Editor- Allen Salzberg**



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**T**he southernmost corner of the Dominican Republic is dominated by limestone karst, a landscape with the look and feel of a petrified giant sponge. Snakes, small mammals, and fat, furry tarantulas live in the fissures and holes in the karst, as do toads, including one species that is not yet fully known to science. I met this new toad at three o'clock one late-fall morning, in a karst forest off a mining road near the town of Pedernales. I was with Miguel Landestoy and Robert Ortiz, a pair of freelance field biologists who have been friends since their youth, and who still spend much of their time looking for amphibians. The toad that we found—the only one we found that night—was a young female. She appeared to be content, floating in a hole filled with water and algae. Her belly was a brilliant white, her back speckled in black and green. She had big eyes spaced widely apart, like a goat's, and a tiny upturned nose. (If not for this nose, she might have looked like a Puerto Rican crested toad, another karst-dwelling species.) As we crouched closer, she headed for the leaf litter. Ortiz noticed something about the way that she jumped—high but not long. Maybe it was a behavioural adaptation, he thought, a way to get around the karst.....

The new toad species was first photographed in March, 2012, when a team of scientists, accompanied by a BBC film crew, came to Pedernales in pursuit of solenodons—ancient shrew-like mammals that also inhabit these forests.



*A male toad of an undescribed species hides in the limestone of the southwestern Dominican Republic.*

photograph courtesy Miguel A. Landestoy

For decades, Pedernales has been known for its bauxite. The ore, a precursor to aluminium, is, in effect, a product of the karst: the chemical and physical processes that create depressions in the limestone can also cause bauxite to accumulate in them. Extracting the bauxite involves digging up the karst, something akin to taking a colossal ice-cream scoop to the earth. The U.S. company Alcoa set up mining operations in the town in the nineteen-fifties; by the late eighties, it had left behind large swaths of sunken red moonscape. The mines were largely dormant until the recent arrival of a company that exports bauxite to China. When Landestoy and Ortiz arrived in Pedernales, they were taken aback by how close the new mines came to the edge of the region's two national parks. Even more distressing was that women were leaving the parks with bunches of logs on their heads; inside them, men were cutting down trees by the hectare. Pedernales lies across a wide dry riverbed from Anse-à-Pitres, Haiti, and thousands of Haitians work on

the Dominican side of the border each day. Some had begun living in the parks, burning the tree stumps and planting beans and corn in the soot-filled holes.

The first toad that Landestoy and Ortiz found was hopping around the charred remains of a supposedly protected forest. During two days and nights, they collected and preserved ten specimens of both sexes, along with some eggs and tadpoles. Landestoy, it was agreed, would write the paper describing the species; taxonomy does not always lend itself well to joint efforts. But a formal description would take time—analysing the toads' DNA, sending samples to foreign institutions for corroboration—and Landestoy, though he'd worked with many highly placed scientists over the years, had the disadvantage of being a freelancer with no formal degree. The pace of the habitat destruction meant that this already rare toad might be all but extinct by the time his description was published. New farm plots were smouldering, and without tree cover more karst would dry out, losing its ability to shelter toads. When I visited Pedernales, I saw that a Haitian family had erected tents and a small thatched house within sight of one park's main gate. It was probably the least promising farmland I'd ever seen, like a dead coral reef. But these were also some of the poorest people in the hemisphere.....

On the afternoon of our return from Pedernales to Landestoy's mother's home, in Bani, ten of the mystery toads sat on a coffee table, suspended in a jar of alcohol. Landestoy ate a piece of cake, staring at them, while Ortiz drank a beer, engrossed in his laptop. Landestoy had decided to measure and label the toads in Bani rather than depositing them at the Museum of Natural History. It was easier than driving into Santo Domingo every day, he explained, and, as with any new discovery, a little discretion never hurt. The two still hadn't thought of what to call the new species, but they agreed that under no circumstances should it be named after any wives or girlfriends. That was the taxonomic equivalent of a bad tattoo. **HerpDigest.org** The only free electronic newsletter that reports on the latest news on herpetological conservation, husbandry and science Volume # 15 Issue # 3 1/13/15 - Publisher Allen Salzberg By Jennie Erin Smith, 1/7/15, The New Yorker

# Couple jump at chance to fix Froggie's tiny leg

## ON THE MEND, SAYS VET

Katrina Greer

AFTER a bird tried to make a meal of him, little "Froggie" must have feared he was about to croak it.

But he didn't count on human kindness and the miracle of modern medicine.

Epping couple, Otto and Claire Konstandatos, recently found their resident native Pepon's tree frog looking worse for wear in a pot plant on the veranda.

"He's been there for a few months, but we noticed that his left eye and leg was damaged and the bone was actually poking out," Mr Konstandatos said.

"He is a nice little bloke and we just felt sorry for him."

Unsure how they could help, they began ringing wildlife services, but it seemed like nothing could be done.

The couple put him in a sterile container to monitor his condition, but the swelling worsened.

They were en route to a reptile park at Penrith when, on a whim, they decided to stop at the Midson Rd Vet Clinic in Epping.

While frog legs are best known for being served up on a dinner plate, veterinarian, Dr Grahame Baker, thought he might just be able to save this one.

It was risky and little

Froggie, as he was nicknamed by his adopted family, would need to go under a general anaesthetic.

A special sedation medication was painted onto his stomach to send him asleep and then wiped off to wake him.

During a delicate, 20-minute operation, Dr Baker inserted a tiny, 0.33mm pin into the broken shinbone.

Because of infection, some of the bone had to be trimmed, so Froggie's repaired leg will be a little shorter than the other.

"It wasn't hard, just a little fiddly," Dr Baker, who has operated on a frog once before, said.

"He is a wild animal and it's nice to be able to fix things."

The patient was allowed to go home shortly after surgery and already has good use of his leg.

A full recovery is expected, but as he is cold-blooded, it will be slower than other creatures.

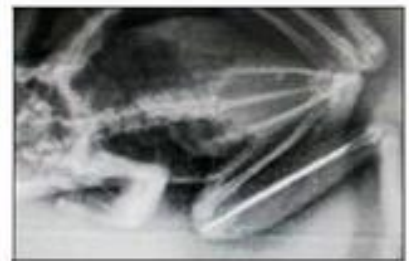
The Konstandatos family have been keeping vigil over Froggie, feeding him moths and small spiders, while also taking him for regular, post-surgery check-ups before being returned to his pot.

"We didn't believe this would be possible. It is amazing he just survived the surgery," Mr Konstandatos said.



Froggie's owner Otto Konstandatos takes the animal out of his recovery container for vet Dr Grahame Baker (left) to check the pin in his leg.

Picture: DAVE SWIFT



## Here's what your purchase helped us do!



Spotted Tree Frogs released into our first Chytrid free stream. A modified, isolated site with no other frog access that we hope will reduce the risk of Chytrid arriving. Kosciuszko National Park February - March 2014

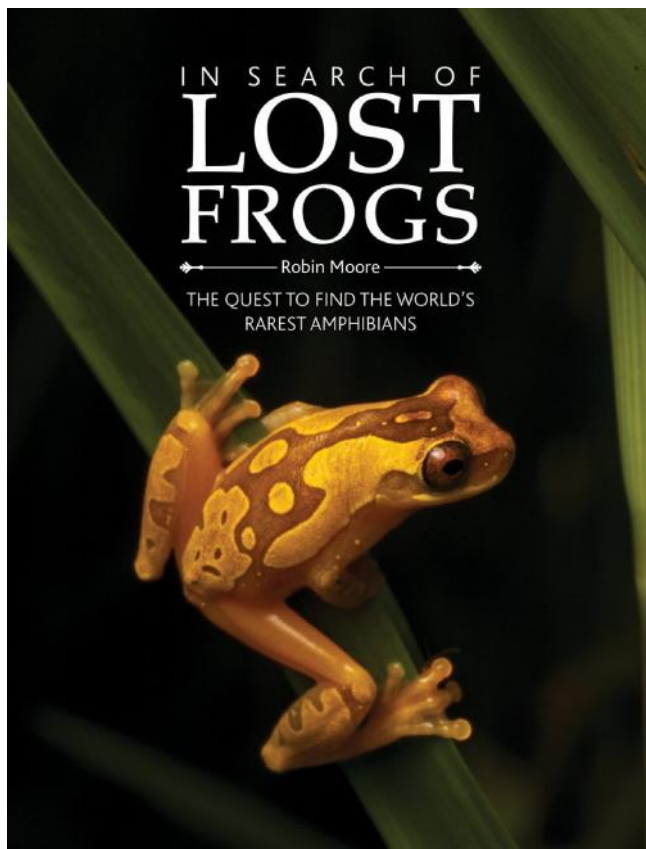
Up next: we will rescue the last Chytrid free Alpine Tree Frog Population!

Saved for YOU:  
October 2014



Gerry Marantelli Amphibian Research Centre <http://frogs.org.au/>





**A** beautifully rich and personal exploration of the plight of amphibians and the people working to save them. Moore's book proves him not just a fantastic photographer but an excellent reporter and compelling storyteller. Such a vital part of the natural world, amphibians are lucky to have this artist on their side: Jennifer S. Holland, NYT best-selling author of *Unlikely Friendships* and *Unlikely Loves*. Her latest book is *Unlikely Heroes*. A magnificent record of the global hunt for "lost" frog species.

Dr. Robin Moore has a passion for frogs and a fascination with finding new and "lost" species. In 2010, he spearheaded the worldwide "Search for Lost Frogs" campaign, which coordinated the efforts of 33 teams of scientists in 19 countries on five continents in a quest to find 100 species of amphibian not seen in over a decade.

*In Search of Lost Frogs* is a stunning record of Moore's journey and what he and his team did (or did not) find. The book is overflowing with exquisite close-up photographs by Moore that display the frogs' remarkable colouring and camouflage, and reveal their diminutive size -- many of the frogs are less than 5 cm long, if that. Moore's engaging text tells the story of the expedition, its highs and lows, discoveries and failures, and the campaign's ongoing work.

The book's first half covers what frogs do for the health of the planet, the slippery slope of extinction, what is being done to monitor frog populations and find lost species, the Lazarus project (which aims to "revive" lost species) and the author's career-long resolve to find the Mesopotamia Beaked Toad.

The second half of the book is about the searches. Moore describes the struggles, victories and dangers as well as the science. He takes readers along as his team trudge through rainforest, climb mountains and paddle rivers in search of the lost frogs, some not seen for more than a century. He tells a story of perseverance, disappointment, rediscovery, resilience, but ultimately of hope, written with passion and illustrated with superb photographs. And a surprise ending: they found 15 lost frogs.

They include:

- In Ecuador, the Rio Pescado Stubfoot Toad, not seen since 1995
- In Haiti, six rediscoveries, including the Ventriloquial Frog and Mozart's Frog, both lost for 20 years
- In India, the Dehradun Stream Frog, last seen (and only once) in 1985; the Elegant Tree Frog (1937); the Chalazodes Bubble Nest Frog (1874); the Anamalai Dot-Frog (1938)
- In Democratic Republic of Congo, the Omaniundu Reed Frog (1979)
- In Ivory Coast, the Mount Nimba Reed Frog (1967).

Naturalists, lovers of all things frog, schools and interested general readers will enjoy the stunning photographs, the science and the adventurous stories of discovery.

400 full-colour photographs, maps, index

256 Pages, Hardcover, \$35.00 Includes S & H (in USA?)

Robin Moore's Bio Since gaining a PhD in biodiversity conservation, Robin Moore has been a powerful voice for amphibian conservation with the Amphibian Survival Alliance. Robin Moore, a Fellow of the International League of Conservation Photographers, is an award-winning conservation photographer whose pictures regularly appear on the pages of *National Geographic*, among other publications.

### Book review by Herpdigest



Photo by Brad McCaffery Alpine Tree Frog

## Frogs: A glovebox guide

AVAILABLE FOR PURCHASE from Murrumbidgee Landcare.

» [Purchase form](#)

The glovebox guide, by Australian threatened species expert, Dr David Hunter, provides an accessible, comprehensive guide to frogs in the Highlands, Tablelands and Slopes of southern and central New South Wales.

The guide includes images, descriptions and rulers to indicate the real size of each frog species. Their habitat is described and their status indicated, identifying whether or not they are a threatened species.

The glovebox guide CD includes the calls of all the frogs listed in the guide. A must for identifying frogs; an ideal tool for developing an appreciation of the marvellous world of frogs across our landscape.

The glovebox guide is a must for scientists, educators, enthusiasts and land holders. Identify the call you hear at night out your back door. Identify the frog you hear on a bushwalk. Help students explore the world of frogs and the music they make.

### PRICE LIST

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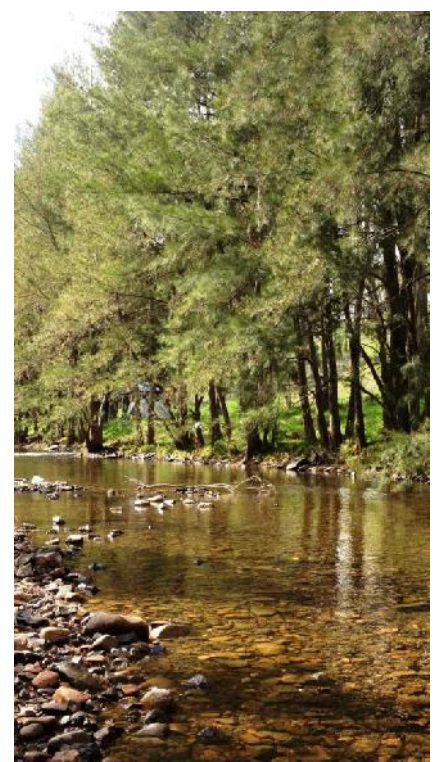
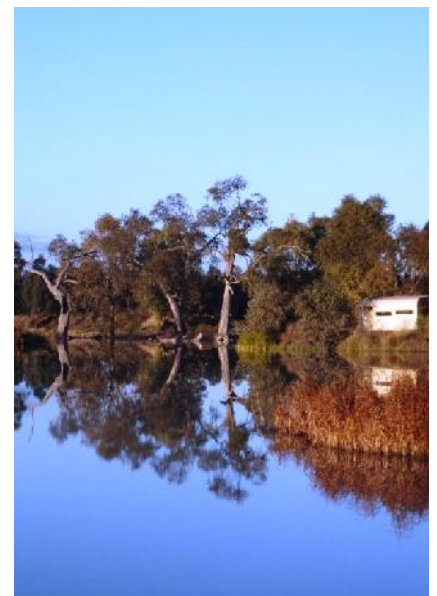
<http://murrumbidgeelandcare.asn.au/node/2481> Posted to FATS Facebook page <https://www.facebook.com/groups/FATSNSW/> on 19/4 by one of our 1,370 members, Dianne Lane.

### WINDOW ON THE WETLANDS CENTRE, WARREN

**W**e plan to celebrate World Environment Day, Friday 5th June (at 5pm) by opening Stage 2 of the Centre, which is the now refurbished church hall. It will be adorned (inside!) with wonderful local artworks for the occasion. We will also take this opportunity to launch our latest Macquarie River Trail – Education. Across the long weekend we're planning to have the Centre open with our Outdoor classroom boards there for anyone wanting to test their knowledge. <http://www.riversmart.org.au>



Photo by Peter Soltys *Litoria verreauxii*



**FATS MEETINGS** commence at 7 pm, (arrive 6.30 pm) and end about 10 pm at the Education Centre, Bicentennial Park, Sydney Olympic Park, Homebush Bay. They are usually held on the **first Friday of every EVEN month** February, April, June, August, October and December (but not Easter, Good Friday). 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.

Rescued frogs are seeking forever homes at most meetings. Please contact us in advance if you wish to adopt a frog. Cash donation required. FATS must sight your amphibian licence. Licences can be obtained from NSW National Parks and Wildlife Service (NPWS), Office of Environment and Heritage (OEH).

<http://www.environment.nsw.gov.au/wildlifelicences/GettingAnAmphibianKeepersLicence.htm> We request you join FATS before adopting a frog. This can be done on the night. Sorry we have no EFTPOS at meetings. Rescued frogs are only available to re-home at meetings.

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.



**Thank you to the many Frogcall supporters.**

**Your articles, photos, media and webpage links, membership administration and envelope preparation is greatly appreciated. Special thanks to regular newsletter contributors, Robert Wall, George Madani, Karen & Arthur White, Andrew Nelson, Wendy & Phillip Grimm, Henry Cook, Marion Anstis and Bill Wangmann.**



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*Litoria nasuta* painting by Garth Coupland

## FATS field trips will recommence in September 2015



Photo George Madani *Limnodystes convexiusculus* Marbled Frog

### HERPDIGEST

#### 15 ANIMAL SPECIES HAVE THE LOWEST CHANCE FOR SURVIVAL (5 OF WHICH ARE AMPHIBIANS)

#### The Amphibians:

1. Bay Lycian salamander, *Lyciasalamandra billae*, Turkey.
2. Perereca *Bokermannohyla izecksohni*, Brazil.
3. Campo Grande tree frog, *Hypsiboas dulcimer*, Brazil.
4. Santa Cruz dwarf frog, *Physalaemus soaresi*, Brazil.
5. Zorro bubble-nest frog, *Pseudophilautus zorro*, Sri Lanka.

*Allobates juanii*, Colombia. Climbing rats, seabirds and tropical gophers are among the 15 animal species that are at the absolute greatest risk of becoming extinct very soon. Expertise and money is needed to save them and other highly threatened species.

A new study shows that a subset of highly threatened species - in this case 841 - can be saved from extinction for about \$1.3 billion a year. However, for 15 of them the chances of conservation success are really low. The study published in *Current Biology* concludes that a subset of 841 endangered animal species can be saved, but only if conservation efforts are implemented immediately and with an investment of an estimated US \$1.3 billion annually to ensure the species' habitat protection and management.

Researchers, led by Assistant Prof. Dalia A. Conde from University of Southern Denmark and Prof. John E Fa from Imperial College, developed a "conservation opportunity index" using measurable indicators to quantify the possibility of achieving successful conservation. To estimate the opportunities to conserve these species the researchers considered:

1. Opportunities of protecting its remaining habitats, which are restricted to single sites. Important factors are costs, political stability, and probability of urbanization.
2. The possibility to establish protected insurance populations in zoos: Important factors are costs and breeding expertise.

The researchers computed the cost of, and opportunities for, conserving 841 species of mammals, reptiles, birds and amphibians listed by the Alliance for Zero Extinction (AZE) as restricted to

single sites and categorized as Endangered or Critically Endangered on the IUCN Red List. "AZE sites are arguably the most irreplaceable category of important biodiversity conservation sites," said Dr. Dalia A. Conde, lead author on the paper and Assistant Professor at the Max-Planck Odense Center at the University of Southern Denmark.

The estimated total cost to conserve the 841 animal species in their natural habitats was calculated to be over US\$1 billion total per year. The estimated annual cost for complementary management in zoos was US\$160 million.

According to Dr. Onnie Byers, Chair of the IUCN SSC Conservation Breeding Specialist Group, "The question is not one of protecting a species in the wild or in zoos. The One Plan approach - effective integration of planning, and the optimal use of limited resources, across the spectrum of management from wild to zoo - is essential if we are to have a hope of achieving the Aichi Biodiversity Targets."

Dr. Nate Flesness, Scientific Director of the International Species Information System, stressed "We want to thank the more than 800 zoos in 87 countries which contribute animal and collection data to the International Species Information System, where the assembled global data enables strategic conservation studies like this."

Dr. Markus Gusset of the World Association of Zoos and Aquariums added "Actions that range from habitat protection to the establishment of insurance populations in zoos will be needed if we want to increase the chances of species' survival." **Widlifeextra.com 29/4/15 (extracts) Volume # 15 Issue #8 4 March 2015 San Francisco State University**



Photo Susie Adamczyk *Oophaga pumilio* Strawberry Poison Dart Frog