

# FROG CALL



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\*\*\*\*\*SPECIAL ANNOUNCEMENT\*\*\*\*\*

*the Bell frog documentary "Still Croaking"  
will be on 6pm Saturday, 19th February  
"Richard Morecroft Goes Wild" on Channel 2*

*You are invited to our next FATS meeting  
at 6.30 pm for a 7.00 pm start  
**Tuesday 15<sup>th</sup> February 2005**  
Australian Museum, Sydney, William St entrance*



Tadpole of Red-Groined Froglet *Paracrinia haswelli* photo by David Nelson

FATS meetings  
will no longer  
be held on  
Friday nights.  
See page 2



## MEETING FORMAT for 15<sup>th</sup> February 2005

- 6.30 pm A small number of Lost frogs are ready to collect from the Frog Rescue Service. People are to take a numbered ticket. Please bring your FATS membership card and Amphibian Licence. Preference given to those who do not have a frog.
- 7.00 pm Welcome and announcements.
- 7.15 pm Main speaker Alan Lane.  
"Urban Frogs in the Upper Blue Mountains".
- 8.30 pm 5 Favourite Slides. Anyone wishing to speak about their recent frogging trips or experiences is most welcome to tell all. If you have slides or other images that you would like to show, bring them along as well.
- 8.45 pm Drawing of door prize

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## 2005 CHANGE OF MEETING DAYS

From the start of 2005, FATS meetings will no longer be held on Friday nights.

We will still be using the Australian Museum Theaterette but our meetings will be held on the

### THIRD TUESDAY night of every even month.

Meetings will start at 7.00 pm (frog collection from 6.30 onwards) and finish at 9.00 pm.

The FATS committee would like to thank the Australian Museum for the use of the Theaterette (at a reduced rent). As many of you may be aware, the Museum's funding has been cut. In order to continue operating, some commercially attractive spaces have been booked for private functions. The area around the Halstrom Theaterette provides a particularly good income source for the Museum.

In order to continue to support FATS, the Museum has kindly offered alternate nights, to hold our meetings. Inexpensive venues, with reasonable seating and slide projectors etc., elsewhere in the city, are beyond our finances. Venues outside the Sydney CBD appear to be less popular with attendees. Having canvassed opinions from our members at our meetings in late 2004, the committee has chosen to stay at the Museum and alter our meeting day to an available Tuesday. We regret any inconvenience or disappointment. Should you be aware of any suitable, alternate venue, then let the committee know.

Please put the date change in your calendar. Monica Wangmann

### THE 15<sup>th</sup> FEBRUARY 2005 FATS MEETING

**A**lan Lane, our guest speaker has recently completed three years field work in the upper Blue Mountains looking at what frogs are surviving the urban spawl and its impacts on frog environments. These types of studies are pivotal in providing information so that we can better manage frogs (and other native creatures) in areas that are becoming increasingly built out.

### LAST MEETING 3<sup>rd</sup> DECEMBER 2004

**A**listair MacDougall opened the meeting and introduced Marion Anstis, author of the field guide *Tadpoles of South Eastern Australia*. This unique and comprehensive book is available to purchase at FATS meetings. Marion is continuing her research and shared her passion for photography and herpetology with us. The South-Western Australian slides ranged from yellow Feather Flowers that turn red as they age, to the small breeding site amphibian *Crinia georgiana* Tschudi's Frog that quack like a duck, *Crinia glauerti* Glauert's Frog who lay their eggs along a stem, the smallest frog *Neobatrachus sutor* Shoemaker Frog, to Marion's favourite *Heleioporus albopunctatus* the Western Spotted Frog which has meandering burrows about one metre under ground. Thank you Marion for a fascinating presentation.

Grant Webster described his trip to the Marra Marra National Park, which is 50 K North of Sydney. The fire trails and small dams proved excellent habitats for Red-crowned toadlets, double drummer cycadas, *fallaxes*, *perons*, yabbies

and many other amphibians. Congratulations to Grant's school, Epping Boys High School for winning the annual Stream Watch Dolphin Award.

David Nelson reported on the October 2004 Smith's Lake field trip. See page 7.

Northern Australian field trip slides of *Adelotus brevis*, *L. lesueuri*, and the Northern Australian *Rana daemeli* were presented by Alistair MacDougall. This led to a discussion by Arthur White on exotic species and the separation and evolution of species. Lothar reported that the Frogmobile white lips had bred. Arthur finished the night with our end of year auction, door prize draw, followed by light refreshments in the foyer. MW



Jervis Bay Treefrog *Litoria jervisiensis* photo by David Nelson

## FOR YOUR CALENDAR

**Next Frogmobile appearance** at Centennial Park: Sunday 24 April, 11 am – 4 pm.

**Frog Wrangler Time** on Radio 2RRR:  
Every Friday 3 pm on 88.5 FM.

Tylers Tree Frog *Litoria taylorii* photo by David Nelson



## FROGBITS & TADPIECES

**Easter Show** (18.3. – 31.3.05): We just received news from RAS that they have no space for us this year. They decided a bit late on which category we should fit into, and that category had already closed long ago. So all you volunteers who put your names down at the December meeting, bear the Easter Show in mind for next year when we (and they?) will know the ropes.

**ABC Radio 702 AM: Simon Marnie** will have Frogsbody sitting in his studio again taking phone calls from the frog-friendly public, on 6 March and on 17 April. This is on Sundays at 10 a.m.

**The weekly Frog Wrangler** segments on Radio 2RRR are the FATS Group's acoustic voice into the wilderness. They are now syndicated nationally, so FATS is being heard right around Australia. "Frog Wrangler Time" is advertised every month in the Community Radio Network Newsletter. You can get it online at [www.cbaa.org.au](http://www.cbaa.org.au) - type "frog" into their search box.

**Redfern Technology Park** features a row of huge refurbished warehouses. Streamwatch presented their schools awards there on 30 November. FATS was also there, together with the Frogmobile. Needless to say, everybody loved the frogs (and by association our wonderful Frog Explainers, our FATS info and yes, Osram too).

**Washed out in the rain.** The Frogmobile exhibition at Centennial Park on 23 January had to be cancelled that morning. All the froggies were packed up and ready to go. (Great pity, especially because there would have been another event at the Park – also cancelled – with an expected crowd of 10,000.)

**Menai's Rotary Club** had their annual street festival on Australia Day, Frogmobile and all. Just over 2,000 people came to see us – and it seemed they were much more interested than most people elsewhere. At any

point in time there were a few dozen of them buttonholing us simultaneously. Not that we minded, but Punia and I were the lone frog wranglers. By the end of the day we felt wrangled all over. L.V.

## BELL FROGS IN ROSEBERY

**T**hose of you who are on the FATS Group's email list already know about this, so I will be brief here. Rosebery was the home to a thriving colony of the threatened Green and Golden Bell Frogs. That colony eventually had to give way to a large housing development, but some of the frogs were taken to Taronga Zoo. They are breeding there and have formed a nucleus for various re-colonisation projects around the Rosebery area; the long-term success of which, as I understand, looks promising but not yet certain.

It turns out that a few Bell Frogs have retained a foothold only a stone's throw from that housing development. There is a cottage with a small garden and an old above-ground swimming pool that is literally teeming with them. The couple who own it let the frogs share their pool and let them come and go as they please. Every year the Bell Frogs spawn in the pool and every year droves of baby frogs leave the pool to seek their luck in the neighbourhood.

So far, so good. But, the pool has had it. It is only barely standing up. It doesn't hold much water, and the liner is so shredded there appear to be more baby frogs trapped behind the liner than anywhere else. It needs to go to the tip, but hopefully without any of the frogs. And hopefully, as soon as it goes, the frogs will find another pond in its place.

And that, dear FATS member, is where we come in. With the help of National Parks. To the rescue. To pull down the pool. To shake the froglets out of the rubble. To build the new pond. We have had 16 of our members responding to a call for volunteers on our email list. We have had an offer of pond plants and surrounding plants. And we're working on some more. But we need to wait until around early May by which time most of the frogs should be well away from the pool. Which also gives the owners and us some time for planning the pond.

Stay in touch as the story unfolds, by subscribing to the FATS Group's email list. A blank email to [fatsgroupnsw-subscribe@yahoo.com](mailto:fatsgroupnsw-subscribe@yahoo.com) will get you on it. L.V.



Bruce's garden pond and *peronii* metamorph - Dulwich Hill

**I**n an effort to raise funds for our ongoing fight to save the ADI site, David Smith, a good supporter of the cause, has designed and printed this calendar. The Calendar will help immensely in fundraising efforts. The price is \$15 posted anywhere. Purchase can be made by credit card over the phone. Ring Bernie on 02 96231317. The paragraph on the back cover reads: Pretty: unique-a celebration of the beautiful and unique wildlife of the Cumberland Plains.

The artwork in this calendar was inspired by the former Australian Defence Industries (ADI) site at St Marys in Western Sydney, currently scheduled for industrial and residential development. All of the Fauna featured in this calendar can be found on this truly unique site, which was listed at a State level in the NSW National Trust Heritage register in 1996 for its contribution to biodiversity conservation, its rare and endangered species and its contribution to water quality. The Australian Heritage Commission interim listed 1100 hectares of the site on The Register of The National estate in 1997, though this has later been rescinded in favour of commercial development.

For now, it remains one of the few remaining examples of the Cumberland Plains environment in a virtually natural state, with Kangaroos and Emus roaming free within the Sydney basin. Lots more information and photos can be found at [www.savetheadiseite.bmt.com.au](http://www.savetheadiseite.bmt.com.au) -but please note that the production of this calendar and related merchandise is not endorsed by the producers of this website or related political, social and environmental activities. I hope that you enjoy the Calendar and hope that, by the time the year is over, you can also continue to enjoy the ADI site that inspired it.

All artwork copyright, David Smith  
[prettyunique2005@yahoo.com.au](mailto:prettyunique2005@yahoo.com.au)  
 From Bernie Laughlan



Photo by David Nelson - Smiths Lake field trip

Dwarf Treefrog *Litoria fallax*

#### NT OFFERS REWARD FOR CANE TOAD TRAPS

**T**he Northern Territory Government has launched a national competition to invent a trap for the dreaded cane toad. The pest has reached the outskirts of Darwin as it spreads north. It is predicted the toad will have a severe impact on the Territory environment and as a result, the Government has called on inventors to build a trap for the pest. The competition includes two categories - one for traps and the other for methods of attracting the toads.

The designers of the three best traps and the three best methods for attracting the toads will receive \$1,000 each. The overall winner will receive \$10,000 and an extra \$5,000 to market the trap. Rob Taylor from Territory Parks and Wildlife says while the Government hopes to receive some excellent entries, trapping will not stop the toad. "All the trapping can do is provide a local control mechanism," Dr Taylor said. "Trapping's never going to solve the whole problem but in particular places where you've got people who want to do something, traps can definitely play a role in the control of cane toad in those sort of situations."

He says there may be existing traps the Government does not know about. "We're trying to use it as a way to get all the ideas and inventions that are out there that we don't know about and find out about them and trying to choose the best idea that works most efficiently," he said. **forwarded by Steve Weir**

<http://www.abc.net.au/news/newsitems/200412/s1261490.htm>



Cumberland Plain Calendar drawing

## BIO AND OTHER DIVERSITY

**“I didn’t think I’d be learning about peperonata at a FATS weekend,” said Helen.**

**Conversations around the long tables at Smiths Lake are about food — slow food, lovingly prepared, 19<sup>th</sup> Century Literature; Trollope, Collins, Dickens in particular, or craft — knitting and crochet. What are the connections between the above and frogs?**

None whatsoever. It defies analysis.

A deep interest in birdwatching, invertebrates, native plants --- orchids and mistletoes, are more easily explained. Many of us are out early in the morning with binoculars and cameras. Later in the day, it’s lakeside cricket and snorkelling at Seal Rocks.

Helen, Glen and young Alex were at Centennial Park last July for a bit of bicycling. They came across the Frogmobile. There was advice on backyard frogs and ponds. Meetings at the Museum and field trips seemed interesting. FATS sounded like a good group to belong to. They are now part of a diverse culture, full of disparate pursuits and interests. Frogs are a bonus. Alex especially loved the many *Litoria fallax* at the Quarry Pond. “ ’Cause *fallax* sounds a bit like my name.” **From Punia Jeffery**

### NT FROG 'EATS' CANE TOAD

**R**esearchers in the Northern Territory believe they may have found the first natural predator of the cane toad.

**FrogWatch NT says early tests run in captivity have found the frog species *Litoria dahlia* can eat tadpoles and infant cane toads without any apparent side effects from the venom. The group says a frog predator in the Northern Territory could explain why cane toad numbers have been limited in some areas. It says the *dahlia*s populate black soil plain country in large numbers and do not live in other areas populated by the toad, like Queensland.**

However, coordinator Graeme Sawyer says no proof that the frog is a toad predator has been found in the wild. He says the group will know for sure what effect the frogs when toads arrive in the outskirts of Darwin during the wet season.

"We still don't know for sure whether they do it in the wild but I'm pretty sure they do," Mr Sawyer said.

"We know *dahlia*'s a frog predator and so cane toads appear to be pretty easy prey for them as the tadpoles are very slow and the small cane toads are pretty slow as well.

"I'm just surprised they can eat them and not die."

Mystery solved?

Mr Sawyer says the discovery could explain a phenomenon that frog-watchers previously had not taken much notice of.

"We anticipated that at Mount Ringwood station, where we've been doing a lot of this work this year, the cane toads would have got there 18 months ago," he said.

"They didn't and we've got no idea why but it could be because those flood plains have got a lot of dahliis on it."

Two cane toads have been found in Darwin's outer regions in the last fortnight, firming the prediction the toads will arrive in force this wet season. Mr Sawyer is confident toad numbers can be controlled through traps, toad musters and egg and tadpole removal. He says Darwin's weather could play a big factor because the toads become vulnerable in the dry season.

"Our big strategy is to knock the toad population right down during the dry season because when toads move into an area it seems to take between five and seven years for their numbers to build up," he said.

"What we believe [is] if we can keep knocking them back every dry season the numbers will never build up."

'Muck in'

Experts are confident the pest will never settle in Darwin like it has in Queensland. Mr Sawyer says if everyone mucks in, cane toads will not become a common sight in the city.

"[We're] going to see what happens when they hit this country out here in Humpty Doo," he said.

"They're going to be more difficult to maintain. There's lots of natural waterways and stuff out here as well.

"I really think we can probably keep Darwin, Palmerston and parts of the rural area to almost toad-free status.

"There'll probably be the odd one around but they should never get into those areas and build up into huge numbers."

Mr Sawyer says collection depots should be set up in Darwin and Palmerston to encourage people to join the toad fight. He says it is a chance for council and government to implement their toad management strategies.

"It's obviously an issue for people who don't want to kill toads, people who don't want to put toads in their freezer, to have a collection depot where they can just drop the live toads off," he said.

"[Then] whatever happens to them is not their problem.

"I'm hopeful of getting the Government and the council to combine to set up these collection points because if they don't, the councils face getting a lot of dead toad bodies at their rubbish tips."



## FROG TEMPERATURE REGULATION

**I**t's an old debate among frog fanciers: Do frogs thermoregulate?

**"For more than thirty years there has been scientific contention about whether or not amphibians can regulate their body temperature by exposure to heat" said A/Prof. Keith Christian of Charles Darwin University. "This is a basic aspect of amphibian biology, and in order to understand the consequences of habitat or climate change on frog populations we need to understand exactly how frogs interact with their environment".**

Reptilian fondness for basking can be measured by the number of lizards and snakes killed on Australian highways. But Christian points out that "a frog sitting in the sun will increase its rate of evaporation so, depending on the other conditions at the time, its body temperature may either go up or down".

So do frogs have a sophisticated understanding of thermal physics required to know when basking is a good idea? Answering this question will take considerable field research to observe frog behavior at a variety of temperatures.

On top of this Christian and his team plan to computer model the frog's energy balance. To assist this they will build a wind tunnel suited to measuring the heat transfer from their web-footed friends.

Christian notes that being resistant to water losses should make it easier for frogs to control their body temperatures, should they so desire. "That is why the Northern Territory's Top End is the perfect place to do this project: we have about 15 species of frogs that have some resistance to water loss, and they vary from only a small amount of resistance to very substantial resistance".

Some might question this belief. After all, why does a territory frog need to regulate its body temperature when it's 34 degrees every day? Regulation should be far more common among frogs that actually need to warm up.

**Extracted from Australian Science Jan/Feb 2005.  
Caption for photo: Dr Chris Tracy studies heat transfer from a Giant Frog *Cyclorana australis*.  
Article provided by Arthur White**

## IN SEARCH OF THE GOLDEN FROG by MARTY CRUMP - BOOK REVIEW

**M**arty Crump has searched for salamanders along the Amazon River, surveyed amphibians and reptiles in hostile Huaorani Indian territory, been stung by a conga ant and had run ins with various parasites, an electric eel, a boa constrictor and a bushmaster viper. Frogs, frogs and more frogs. In the course of her travels she has dined on wild rat, parrot, guinea pig, saliva soup and chicken foot soup.

For those among us who prefer our experiences to be far away from biting insects, venomous snakes and in hospitable surroundings, she has written an unvarnished tropical fieldwork book *In Search of the Golden Frog*.

The book is a detailed and fascinating chronicle of Crump's three decades as a field biologist, wife and mother in South and Central America. She takes us through rain forests, windswept coasts, introducing us to compelling creatures such as female harlequin frogs who pounce on males and pound their heads against the ground and male Darwin's frogs who carry tadpoles in their throat pouches.

Marty Crump is Adjunct Professor of Biology at Northern Arizona University, a Conservation Fellow of the Wildlife Conservation Society, recipient of the Distinguished Herpetologist Award and co-author of *Herpetology*.

This is a highly readable, fast paced and richly illustrated memoir. (Extracts from the dust cover) **Thank you to my husband Bill for the wonderful selections of herpetological books he finds for me. This one gets 10 out of 10. Bought at Kinokuniya bookshop, Sydney. MW**





Jervis Bay Treefrog *Litoria jervisiensis* Photo by David Nelson

### SMITH'S LAKE FIELD TRIP

**“Get a look at this little bewdy!”** I cried, emerging from the reedy shallows. I held, struggling in my hand, a male Tusked Frog - *Adelotus brevis* – a frog that had evaded us all so far that evening. A look in the frog’s mouth showed the glistening, razor-sharp tusks emerging from the lower jaw, the weapons that made catching this frog such a dangerous job. “Don’t try this at home, kids”. Catching frogs is no easy task, and the frogger who doesn’t keep his wits about him could meet a slimy end.

Smith’s Lake is one of those frogging trips that we all love – for the great frogs of the area (something like 30 species) as well as for the chance to spend a weekend with FATS members. The most recent trip was on the 15<sup>th</sup> to the 17<sup>th</sup> of October 2004, and we had a good turnout of froggers, young and old, meeting at the UNSW field studies centre on the banks of Smith’s Lake, about 150km north of Newcastle. The great thing about the area, and the thing that explains the great diversity of frogs that can be found nearby, is the variety of habitats that can be found – everything from tall flooded gum forest in Wallingat to the wallum swamp just behind the field station.

The first night saw us stomping around in the quarry ponds not far from base camp, surrounded by the calls of several frog species, including the cute little squeaking of the Dwarf Treefrog (*Litoria fallax*) and the rhythmical laugh of Tyler’s Treefrog (*Litoria tyleri*). The bass grunting at the first pond was emanating from Smooth Toadlets (*Uperoleia fusca*), but a somewhat similar squelch at the second pond was a different kettle of frogs, the Red-backed Toadlet (*Pseudophryne coriacea*). A couple of other treefrogs at the site - not calling - included Peron’s Treefrog (*Litoria peronii*) and the Jervis Bay Treefrog (*Litoria jervisiensis*).

A small expedition ventured out later that night to a pond where Arthur has witnessed the decline of a Green

and Golden Bell Frog (*Litoria aurea*) population – sadly no joy here though we did hear the duck-like quack of the Red-Groined Froglet (*Paracrinia haswelli*).

*Crinia timula*, the Wallum Froglet, could frequently be heard calling behind the field studies centre as usual, and a short walk along the track was all that was needed to see a few clusters of eggs in the tannin-stained puddles (Marion says that they’re likely to be the Wallum Rocket Frog (*Litoria freycineti*)).

Thanks to a team of anglers we had a few tadpoles from the quarry to look at on the second day – *Uperoleia*, *Paracrinia* and *Limnodynastes dumerilii*. Very interesting to see and photograph these.

The second night – fire-dams in Wallingat State Forest. These dams are always fruitful and it’s interesting to see which frogs are there from year to year. Though it was a quiet night there were still plenty of frogs – male Whirring Treefrogs (*Litoria revelata*) beautiful in breeding season yellow; the double click of our friend the Tusked Frog’s call; Lime green jewels being Dwarf Treefrogs; even a visiting female Jervis Bay treefrog. Barred frogs are present in the area but we didn’t manage to rustle any up – the highlight was finding that Tusked frog as well as spotting a few clumps of spawn from the same – distinctive for the white embryos in a frothy floating mass. Despite suggestions from a young frogger to ‘crack him open’ the tusked frog was returned to the water with no injuries to him or ourselves, after a short time in the spotlight



Whirring Treefrogs *Litoria revelata* photo by David Nelson

We all know how difficult it would be to have a disappointing trip to Smith’s Lake as a rule, and this trip, while not spectacular, was no exception to this. For newer froggers there’s the satisfaction of seeing so many frogs of several different types, and those more experienced can work on identifying frog calls or picking distinguishing features of cryptic frogs. We’re very lucky to have this spot and I’m sure we’re all looking forward to the next opportunity to be up there. **David Nelson**

## THERE IS AN INTERNATIONAL WORKSHOP

**O**n *chytridiomycosis* (Biology, diagnostic assays and sampling) will be held at CSIRO (AAHL) Geelong, Australia during the first week of April 2005. Brief details are below. Further information and registration information can be found on the Amphibian Disease WEB site

<http://www.jcu.edu.au/school/phtm/PHTM/frogs/ampdis.htm>

**M**s Magaret Lupton or Ms Nicole Cameron

**Tel:**+61 (0)3 52 275007; **Fax:** +61 (0)3 52 275400

**Email contact:**[aahl-reception@csiro.au](mailto:aahl-reception@csiro.au).

## THE ECOLOGY AND MANAGEMENT OF CUMBERLAND PLAIN HABITATS:

### **A** Symposium

**When:** 16 February, 9.00am - 5.00pm

**Where:** Campbelltown Campus, Building 9, Lecture Room 4, University of Western Sydney

Cumberland Plain habitats typify the challenges of conservation planning and management in an environment that, although highly modified, retains substantial biodiversity values. In this context ecologists are asked to advise on a wide range of issues from broad legislative, policy and planning settings to fine-scale decisions about managing individual remnants. This symposium, with its broad scope and range of participants, will have direct benefits in terms of information exchange and communication in a friendly and stimulating atmosphere.

The following themes will be addressed:

1. Biodiversity
2. Disturbance regimes
3. Weeds
4. Management
5. Restoration dynamics
6. Conservation

**Aim:** to bring together ecological scientists and researchers, to inform each other and the community on the ecology and management of Cumberland Plain habitats. It is aimed at individuals from Universities, Government agencies (state and local), community groups and environmental groups.

**Cost:** \$10 payable on the day

**Registration:** by 31 January 2005 to: B. Pellow, Janet Cosh Herbarium, University of Wollongong, Northfields Ave, Wollongong 2522.

Or register by email: [bpellow@uow.edu.au](mailto:bpellow@uow.edu.au)

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## WETLANDS IN CRISIS

**A**s World Wetlands Day rolls around again this year, many of the state's 188 wetlands face destruction due to the pressures of development and pollution and require greater protection and management. In coastal areas, wetlands such as at Lake Cathie on the mid-north coast and Rockdale Wetlands in southern Sydney are under threat from development and pollution, while water extraction and salinity threatens the Macquarie Marshes and the Gwydir Wetlands in the state's northwest.

As the new parliamentary year begins, it is suggested that you comment to the Planning Minister Craig Knowles to revise and extend Environment Planning Policy, SEPP 14, to include all significant wetlands and intervene in the current destruction of wetlands through the recently introduced SEPP 71.

## HERPDIGEST SUNBURNT FROGS A MYTH:

**P**ond Scum offers Natural Sunscreen – Being green has become a little bit easier thanks to the research of York Biology From Prof. Larry Licht (Press Release - Toronto, York University, June 30, 2004, Licht, who has been studying the potential effects of ultraviolet radiation (UVB) on the biology of amphibians, says that, contrary to widespread belief and environmental reports, natural ambient UVB is unlikely to actually damage amphibians and plays little if any role in their global decline. "This hypothesis of UVB killing amphibians has been widely circulated in the media," says Licht, who has been studying the ecology, evolution and behaviour of amphibians and reptiles for more than 35 years.

Licht says that amphibians possess natural defences against damage from exposure to UVB. To date, his research has shown: 1) that amphibian eggs/embryos have melanin pigmentation which absorbs most UVB; 2) the jelly covering around eggs reduces the amount of UVB reaching embryos; 3) amphibians possess an enzyme which repairs DNA damaged by UVB; and 4) amphibian eggs are normally deposited in water of lakes and ponds at depths of several centimetres and this water usually contains dissolved organic content (murky pond scum) which is very effective at absorbing UVB and reducing the amount that extends downward. Licht's findings, "Shedding light on ultraviolet radiation and amphibian embryos", were published in *BioScience*, a leading North American journal that covers biological research. He maintains a Website on his research at <http://www.yorku.ca/lel> For more information or to arrange an interview, media should contact: Ken Turriff, York University Media Relations, 416-736-2100, ext. 22086 [kturriff@yorku.ca](mailto:kturriff@yorku.ca)



## THE ATELOPUS INITIATIVE: CONSERVING ENDANGERED TROPICAL ANDEAN AMPHIBIANS

**A**gainst the backdrop of the ongoing phenomenon of global declining amphibian populations, and given the pressing need to address these declines and implement appropriate conservation actions, the Global Amphibian Assessment (GAA) has recently been concluded for all of the world's regions (Stuart et al., 2004, [www.globalamphibians.org](http://www.globalamphibians.org)).

One of the most alarming finds of the GAA is that the Tropical Andes, one of the world's biodiversity hotspots, are facing a severe extinction crisis. Of the region's 921 recognized highland species, 39% are IUCN-categorized as Globally Threatened and 24% as Data Deficient. It is this scenario that gives rise to the Atelopus Initiative.

The Atelopus Initiative is a multinational effort comprising the Tropical Andean nations of Bolivia, Colombia, Ecuador, Peru and Venezuela, together with other Latin American and UK scientists, to research and conserve endangered Tropical Andean amphibians and amphibian hotspots in the region.

The Atelopus Initiative is a first regional attempt at assessing the status of Tropical Andean amphibians and using this information to design a regional Amphibian Research and Conservation Strategy. It is sponsored by the Darwin Initiative, a program of the United Kingdom Department for Environment, Food and Rural Affairs (DEFRA), and coordinated through Conservation International over the next three years, becoming thus a landmark step towards building the foundations of what we envisage will lead to permanent research and conservation efforts and collaborative alliances between institutions and scientists in the region.

The primary goal of the Atelopus Initiative is to address the amphibian extinction crisis in the Tropical Andean region through capacity building, training, research, and proposals of conservation priorities and strategies for the next decade. More specifically, the Initiative's objectives are:

To develop a long-term Regional Amphibian Research and Conservation Strategy, in order to prioritize activities and formulate effective and cost-efficient research and conservation actions

2) To increase institutional capacity, including the training of individuals and the development of taxonomic tools necessary to collect scientific data on the status of amphibians across the region

3) To forge an alliance of local, national and regional research and conservation institutions within the Tropical Andes, so as to combat the precipitous decline of amphibians and avoid imminent extinctions

In order to address these objectives, the Atelopus Initiative relies on collaborative efforts to target the common goal of amphibian research and conservation. We draw on the expertise of regional, other Latin American and UK scientists to undertake activities such as: the development of working

documents, a standardized field protocol for the Tropical Andean region, identification field guides and research and conservation strategies, all of which will be adopted and implemented over the course of the Initiative; the determination of key amphibian areas; and to carry out training courses where standardized procedures in evaluating amphibians are imparted to graduate and postgraduate students as well as established researchers in the region.

Data collection is to be undertaken using those methods established and agreed upon by experts convened at our workshops, so that results across the region can be made comparable. The Initiative will give seed grants for a value of up to US\$ 1,000 to undergraduate and graduate students undertaking their thesis field work, or to researchers conducting other projects on amphibian populations of the Tropical Andean region. Additional fund-raising efforts are undertaken to complement and enhance research and conservation endeavours already in place. Collected data will be compiled into a Darwin Tropical Andes Amphibian Database, and analysis of these data will be used in the elaboration of a 10-year Regional Amphibian Research and Conservation Strategy.

The Atelopus Initiative is an ambitious project, and in this context there are a number of important outputs projected over the course of the next three years:

The production of 3-year and 10-year Regional Amphibian Research and Conservation Strategies  
The identification of 50 Key amphibian areas  
The production of a standardized amphibian inventory and monitoring protocols for the Tropical Andean region  
The undertaking of two training courses in standardized inventory and monitoring techniques agreed upon by participating specialists at the first Initiative's workshop  
The funding of undergraduate and postgraduate students through grants for thesis research  
Fieldwork focusing on amphibian inventories, monitoring, and conservation threat assessments  
The development of identification tools and guides for key groups of amphibians  
The creation of a Regional Database for Tropical Andean amphibians  
Species and site conservation and management action plans  
The publication of Darwin Initiative Reports I and II  
The publication of peer-reviewed journal articles  
The enhancement of amphibian collections in each host country

Some of these expected outputs have begun to be addressed through the Initiative's first workshop held at Villa de Leyva, Colombia, between 21 to 25 August, 2004. During this event, 35 participants from nine different countries (Bolivia, Colombia, Costa Rica, Ecuador, Germany, Panama, Peru, USA and Venezuela) worked towards establishing an open regional network of amphibian specialists (Red Regional de Observadores de

Anfibios-RROA, [red\\_atelopus@yahoo.com](mailto:red_atelopus@yahoo.com)), developing standardized field inventory and monitoring protocols for the region, establishing a three-year research and conservation strategy for the Tropical Andean region and producing a preliminary database of key amphibian areas.

It is through these coordinated efforts and concerted research and conservation actions that we may be able to appropriately address the imminent extinction crisis being faced by Tropical Andean amphibians.

#### References

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[www.scienceexpress.org/14](http://www.scienceexpress.org/14) October 2004/Page1 /

0.1126/science.1103538 For further information or to receive this report in Spanish please contact:

[a.angulo@conservation.org](mailto:a.angulo@conservation.org)

By Ariadne Angulo, Paul Salaman and José Vicente Rodríguez

#### AMPHIBIAN CONSERVATION IN ZOOS

**K**evin Zippel has put together a comprehensive account of amphibian conservation in zoos around the world. It is posted at the AmphibiaWeb web site: [www.amphibiaweb.org/aw/declines/zoo/zoos.html](http://www.amphibiaweb.org/aw/declines/zoo/zoos.html)

#### NEW REPORTS OF CHYTRIDIOMYCOSIS

**N**ews has reached us of three new locations where chytridiomycosis has been found in wild amphibians, Argentina, Italy and the UK. Further details will be published, in FROGLOG and at our web site, as they become available.

#### GREEN TREE FROGS AND BANANAS

**A**ustralian Broadcasting Corporation, 2/2/05  
What do bananas & green tree frogs have in common?

Summer is a busy time of the year for the "lost frogs home". Glen Johnson from the Department of Sustainability and Environment says a high number of species; particularly frogs, are making their way south

"They are what we term banana box frogs. They are a green tree frog from up North and they are part of a troop of animals which routinely make their way down as stowaways. They are the quintessential hitchhiker of the supermarket trade.. they come down with fruit particularly bananas and they are a common occurrence in our area (North East Victoria).."

"Just with the Melbourne markets there is an estimated 6 to 8 thousand of these frogs. There is probably around 3 to 4 species of tree frog. Most of them are that typical green frog that we have the image of .. it's probably not restricted to frogs, there are reptiles as well.."

"Most of these things are tropical species and they wont really survive the first winter.. of more concern is that these things have often got potential diseases that they are carrying and there is the potential, if they are released in the wild, to contribute to that disease spread with our native frogs down this neck of the woods.."

"So we send them down to what is termed the A.R.C, the Amphibian Research Centre, which is an organisation in Melbourne and they go through a quarantine process to ensure the frogs are clean and safe and ultimately released back into a pet trade.. the lost frogs home is a pretty active place over this summer period.."

#### NT TRAPS MANAGE TOAD NUMBERS

**C**ane Toads are being successfully trapped in the Northern Territory, experts said. The Sunday Territorian reported that field trials have shown that cane toads can be eliminated locally through trapping. FrogWatch joint coordinator Graeme Sawyer said test site have been kept relatively toad-free with a single cage trap.

"Our tests near Katherine and Adelaide River showed that traps initially catch all the toads in the area around a house or block within a few weeks," Mr Sawyer said. "Any new toads that move into the same area are also quickly caught."

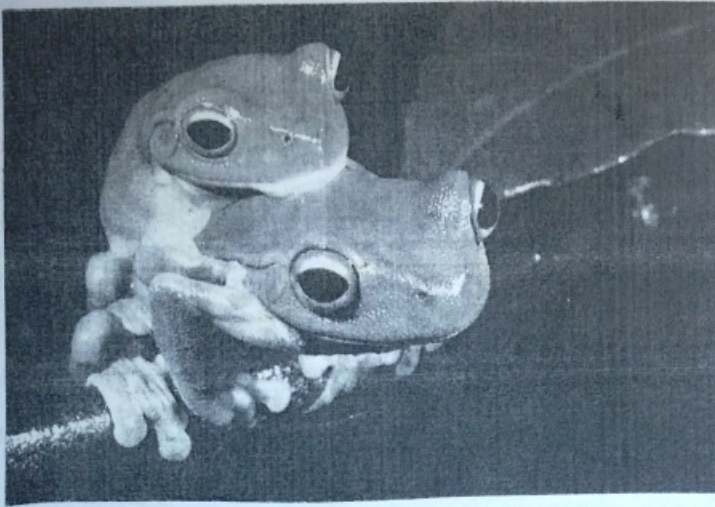
He said the toads are attracted to a solar-powered light placed in the trap or the insects that are attracted by the light. The one-way gate trap allows toads to push their way into a cage from which they can't escape.

Nat 9 news from Steve Weir

HerpDigest Inc. is a non-profit, corporation that publishes the electronic weekly newsletter called HerpDigest, and runs the website under the URL [www.herpdigest.org](http://www.herpdigest.org).



Photo by Wendy and Phillip Grimm



SMH 12 Jan 2005  
 A love that dare not squeak its name  
 As kids from south park might say, nature is so gay.  
 Anne Fawcett - Upskill

If you're the sort of person who claims that homosexuality is unnatural, don't look to the birds and the bees for support. According to biologists, they may be too busy courting a same-sex partner to worry about sexual politics.

Take Adelie penguins on Antarctica's Ross Island. Scientists studying the courtship behaviour of this species were a little taken aback when they stumbled across a pair of males not only "vibrating bills" against one another, but engaging in sexual activity – and swapping positions during their love-play.

The intimate moment made headlines in Australia, where *Nature Australia*, sparing no detail, reported that "the top penguin was seen to ejaculate".

As far as wild animals go, these penguins weren't doing anything out of the ordinary. Young male elephants are known to intertwine trunks and mount one another. Bottlenose dolphins of both sexes will spend hours probing the genital slit of a same-sex partner. Male giraffes engage in prolonged "necking" sessions followed by mounting and orgasm. Up to 50 per cent of sexual encounters between pygmy chimpanzees (bonobos) are same-sex interactions, and may involve more than two participants at any one time.

Worldwide, more than 450 species have been observed engaging in courtship, pair-bonding, co-parenting and sexual intercourse with a same-sex partner.

"To date homosexual behaviour has been reported in 25 mammal and 45 bird species within Australia, New Zealand and Antarctica alone," says biologist Geoff MacFarlane. "Homosexual

behaviour is more prevalent in the animal world than perhaps people have been led to believe."

But not everyone is comfortable with what other species do in the privacy of their own ecosystems. A report on orca (killer whale) behaviour that included observations of sexual activity between male orcas was censored when it was published by the US Government's Marine Mammal Commission. All mention of homosexuality was simply edited out.

Why would anybody be troubled by a couple of whales having a gay old time? It could be a case of cross-species homophobia. Or it might be a deeper concern about the implications of such behaviour – if it's OK for orcas, maybe it's OK for people, too.

Of course, one might argue that animals that exhibit homosexual behaviour are simply being opportunistic, particularly when observed animals are in captivity and their choice of partners is limited (the so-called "prisoner effect"). Or, as one researcher wryly suggested in the case of the Adelie penguins, it may have been a case of honing one's sexual repertoire on a same-sex partner before unleashing it on the chicks, so to speak.

Studies of exclusively same-sex-attracted rams suggest a biological basis for homosexual behaviour. Rams that prefer mounting other rams have a slightly different brain structure than those that prefer mounting ewes. In fact, the nucleus of cells controlling the release of sex hormones in the brain of the "gay" rams resembles the same area in "straight" ewes. As many as one in 10 rams is "gay". So it's just as well that they don't seem to have any hang-ups about it.

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## FIELD TRIPS

*Please book your place on field-trips; due to strong demand, numbers are limited (phone 9681-5308). Be sure to leave a contact number. Regardless of prevailing weather conditions, we will continue to schedule all monthly field-trips as planned. It is YOUR responsibility to re-confirm, in the final days, whether the field-trip is proceeding or has been cancelled ( ph. 9681-5308 ).*

**February 12. 8-30 p.m. Manly Dam Memorial Park. Leader : Elizabeth Magarey.**  
Meet at the gate entrance ( King St, off Condamine St, Manly Vale ). Once a vital & pristine source of drinking water, Manly Dam is now under enormous pressure from encroaching development, ecological isolation & a burdensome recreational use. Tonight, using frogs as bio-indicators, we will attempt to assess the water quality & integrity of local eco-systems. Normally off limits to the public after hours, the rangers have kindly made access available to FATS members for tonight only. Elizabeth is a biodiversity officer with NPWS & spends most of her professional career pursuing rare & endangered fauna in some of the most remote & inhospitable areas of NSW. (Hint : members may wish to review the latest Frogfacts sheet (#9), for this field-trip).

**March 11-13. Smiths Lake. Leaders : Arthur & Karen White.**  
University Of NSW Field Studies Centre. Few organisations are fortunate enough to have the expertise of Arthur White. Arthur is a research fellow with the University of NSW. Much of his research has been published in the leading scientific journals across the country. As well, he is a leading figure in the unravelling of the mysteries of the famous Riversleigh fossil site in outback Queensland. This weekend, he will guide us through the identification & ecology of the Smiths Lake froglife. Cabin/dormitory & camping sites available. All kitchen facilities/crockery/cutlery supplied. Limit of 30 people. Bookings only accepted with payment. See newsletter article for further details. Phone Arthur & Karen White for bookings & further enquiries ( ph. 9599-1161 ).

The FATS Committee need to remind all members that the Smiths Lake fieldtrip can only be booked by paying **IN FULL, IN ADVANCE**. Once a booking is accepted any cancellation will result in **forfeiture of payment**. We need to do this as the venue is paid for in advance & a no-show by participants means FATS must make up the shortfall. We feel this is not in the best interests of the FATS group & hope all members feel the same way. Rates for the Smiths Lake fieldtrip remain at \$12-00 per person, per night. Please also remember that all children under 16 years **MUST** be supervised by an adult **AT ALL TIMES**. Field-trip leaders and/or FATS Committee members are unable to provide supervision at any time. Pets are not permitted. Please phone Arthur & Karen White for all bookings & enquiries. ( ph. 9599 1161 ).

**This concludes our 2004 / 2005 Spring/Summer field trips programme.  
The 2005 / 2006 season re-commences in September !**

**\*\*\* DON'T FORGET** our specialist research field trips with Graham Pyke & The Australian Museum. Ideal for all students & serious enthusiasts. Locations at Long Reef, North Avoca & Broughton Island. Contact the Field Trips Co-ordinator for further details.

In the event of uncertain frogging conditions (e.g. prolonged / severe drought, hazardous and/or torrential rain, bushfires etc.), please phone 9681-5308. Remember! - rain is generally ideal for frogging! Children must be accompanied by an adult. Bring enclosed shoes that can get wet (gumboots where specified), torch, warm clothing and raincoat. Please be judicious with the use of insect repellent - frogs are very sensitive to chemicals! Please observe all directions that the leader may give. Children are welcome, however please remember that young children especially can become very excited and boisterous at their first frogging experience - parents are asked to help ensure that the leader is able to conduct the trip to everyone's satisfaction. All field trips are strictly for members only - newcomers are however, welcome to take out membership before the commencement of the field-trip. All participants accept that there is some inherent risk associated with outdoor fieldtrips & by attending agree to; a release of all claims, a waiver of liability, & an assumption of risk.

**INSURANCE DISCLAIMER** FATS has public liability insurance for its various public functions. FATS members should be aware that this insurance does not cover FATS members (it covers the public & 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.

**\*\*\* CHANGE OF FATS MEETING DAYS \*\*\*2005 FATS meetings will be held from 7pm to 9pm on the third Tuesday of every **EVEN** month at the Australian Museum (February, April, June, August, October and December).** We hold six informative, informal, topical and practical meetings each year at the Australian Museum, Sydney, William St entrance. Please check this Frogcall for further FATS meeting information. Visitors are welcome. We are actively involved in monitoring frog populations and 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 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 source must be fully acknowledged. Always confirm date and location of the next meeting.