

FROG CALL



NEWSLETTER No. 74
November 2004

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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 Threaterette but our meetings will be held on the

THIRD TUESDAY night of every even month.

The first meeting is on Tuesday 15th February.

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

Please put the date change in your calendar.

You are invited to our next FATS meeting

6.30 pm for a 7.30 pm start

Friday 3rd December 2004

Australian Museum, William St Sydney entrance



MEETING FORMAT for 3rd December 2004

- 7.00 pm Lost frogs are ready to display and 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.
- 7.30 pm Welcome and announcements.
- 8.00 pm Main speaker Marion Anstis
Marion has recently completed a frogging trip around the South-western corner of Western Australia and will present her account of "Some Tadpoles and Frogs from South-western WA".
- 9.30 pm End of year auction.
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.
- 9.45 pm Drawing of door prize
- 10.00 pm Tea, coffee and relaxed conversation.

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THE LAST MEETING 1st OCTOBER 2004

Andre Rank spoke of his childhood addiction to frogs and reptiles and described some of the historical changes that took place in Germany. Many thanks to Andre for all the work in preparing and presenting his recollections about the "Real Frogs". Frogs certainly are addictive. Andre has been kind enough to record some of his adventures. Please refer to page 5.

Arthur White spoke about the recent accidental discovery of *Nasikabatrachus sahyadrensis* the Purple Frog or Pignose Frog. The frog spends most of the year underground, and only surfaces for about two weeks during the monsoon. The frog is a living fossil. According to genetic analysis, it is distantly related to the family *Sooglossidae*, which is found in the Seychelles.

Wendy Grimm displayed field trip slides of Burra in South Australia, *Litoria wolcoxii*, *Crinia*s and egg-masses. Lothar Voigt spoke about Frogweek, conferences, chytrid and the availability of frog food (flies) at the meeting. We finished the meeting with the drawing of the guessing competition and light refreshments in the foyer. **MW**

The FATS December 2004 meeting will include our end of year auction. Various items have been brought in already. If you want to contribute further items for the auctions you can bring items along on the night, otherwise bring money to bid for items. It should be a good opportunity to do some of your Christmas shopping early.

Frogs available from Frog Rescue are available from 6.45pm onwards. Remember, you must be a FATS member to receive a frog and must have your NPWS licence with you. **AW**

MORE TO FROG DECLINE THAN SKIN FUNGUS Tuesday, 05 October 2004

Rare frogs are either toughening up or the severity of the fungus credited with their worldwide decline has been exaggerated. The skin fungus, *Batrachochytrium dendrobatidis*, was identified in 1998 and blamed for the extinction or population declines of many frogs worldwide, including at least 14 rainforest frogs in Queensland.

At Eungella National Park, outside Mackay, the skin fungus was thought to have led to the extinction of the gastric brooding frog and the near extinction of the Eungella Day frog in 1985-86. Associate Professor Hamish McCallum, from The University of Queensland's Department of Zoology and Entomology, has written a paper which shows the Eungella Day frog now coexists with the supposedly lethal fungus.

To track the effects of the fungus on the frogs, Associate Professor McCallum and two researchers re-examined 474 preserved toes from six species of frogs, including

the Eungella Day frog from Eungella's rainforest streams. The team found the fungus was present as a stable, localised infection in two of the frog species having no effect on the survival of the Eungella Day frogs.

Associate Professor McCallum said this suggested either the frogs had built a resistance to the fungus or it wasn't the fungus that had killed them in the first place. He compared the fungus case to the spread of myxomatosis in rabbits when death rates dropped as the disease became less pathogenic and the rabbits more resistant.

There are many theories why frogs are dying around the world such as disease, loss of habitat, pesticides and UV radiation. Scientists know a frog's skin is important for breathing and regulating water content but know little about the fungus.

"Nobody really knows at the moment exactly how it kills them," Associate Professor McCallum said.

"Lots of people are looking but nobody has actually identified a particular toxin."

He said more research might allow rare frogs to be bred for resistance to the fungus.

He believed the scientific community was recognising that diseases were important to understanding wildlife and this research showed the importance of studying diseases in the wild not just in the laboratory.



The frog research paper, *Endemic infection of the amphibian chytrid fungus in a frog community post-decline*, will be published in the electronic science journal *Public Library of Science*.

For more information contact Associate Professor McCallum (phone: 0428 693 712, 07 3365 2450, hmccallum@zen.uq.edu.au) or Miguel Holland at UQ Communications (phone: 3365 2619, m.holland@uq.edu.au) Photo (above) from UQ photographic librarian Dianna Lilley (phone: 3365 2753, email: d.lilley@uq.edu.au) - forwarded on to australianherps@yahoo.com by Jeff Crocombe

FROGWEEK 2004

WHAT REALLY HAPPENED

A near disaster, after all those Frogweek press releases our committee sent off, after the SMH and local papers had told everyone how good it would be and after the public had already started ringing our Helpline mobile off the hook, and then this!

Frog Friday fell on the 5th November this year. By Frog Friday (which, as you know, is like Good Friday but just before the main Frogweek event), by Frog Friday all the cages and handouts were ready and lined up, the equipment was shining and the new lot of fridge magnets had just arrived and the Frogmobile stood outside the house ready to go. Ready to be towed over to Centennial Park for the big day.

That was the moment the towing vehicle broke down. Emergency admission to car hospital with a broken clutch. No problem we thought, there are usually other FATS members who can tow the thing. It turned out there weren't any then. So we thought we go and hire one. Turns out the rental places wisely ignore the towing market. Finally we found one, maybe the last one in Sydney. Arthur brought it over from Hurstville, and all was well again.

Beastly early on Sunday morning the Crew started swarming over the Frogmobile, by the Duck Pond and next to the new water tap Centennial Park had installed for us. Karen and Arthur set up their shade gazebo (which became immensely popular during the day). Wendy and Phillip and Punia set up the cages and the pull-out fish pond, Alistair and Val and Grant minded the crowd, the donation box and the handouts. By the time I came back (I had ducked over to ABC Radio for a Frogweek talk – good old Simon, he mentioned our website umpteen times!), by then just about all the work was done.

And what did the spectators think? Yeah, they loved the little froggies! Maybe some felt bad for having taken their swamps away and went home with a frog pond leaflet. Some did the guessing competition and marched off with a poster; others got a few frog rescue fridge magnets to give to their greengrocers. One family came over from the Central Coast, another one from Glenbrook, after they heard about the Frogmobile on the radio that morning. All up, around 2200 people came to visit the Frogmobile that Sunday.

It appears Frogweek is working. Show people a snake or a goat, and they are probably interested but curious why you're doing it. Show them a frog and they are concerned for the little thing. And they know why you are there. You are showing them something that might be gone one day.

Which keeps us going. A big thank you to everyone who helped. L.V.



FROGBITS & TADPIECES

More Frogweek activities: Arthur gave a talk at Narrabeen Council on 5 November. Monica was everywhere. Phil Bishop from Otago Uni is organising Frogweek events in New Zealand. If you, dear reader, did anything special for Frogweek, please let us all know.

If you're quick, you can still see our Frogweek press release on <http://www.fats.org.au/pr.html>.

Fridge magnets: NPWS gave us funding to print another 1000 frog rescue magnets with the FATS Helpline phone number. Pick a few up at the meeting, not for yourself but to give any major greengrocers in your area.

Too many flies? Put your styro cup with pupae into an outer styro cup, poke a matching hole through both and turn the inner cup when there's enough flies in the cage. Or turn the cup just a fraction if the hole was too big, to stop small frogs from getting in.

Rescued frogs – yes, there will be some at the meeting for our members. Bring your licence and be early.

Bring your old FrogCall newsletters in, unless you collect them. New members would love them.

900 people came to see FATS and the Frogmobile at Centennial Park on Sunday, 3rd October, at our usual spot. Punia, Wendy, Elvira, Alexahnder and Michael all helped make it a success. A Steve and a Rachel met up with us there and handed over their prized Green Tree frogs into our care. They're off to Tasmania and can't take them along.

The giant rubbish skip that got dumped inches in front of the unhitched Frogmobile trailer pinned us down for ages. Until I figured out how to tow the FM out of the way, backwards.

Streamwatch are presenting their schools awards on Tuesday, 30 November, at Redfern technology Park. FATS will be there. And the Frogmobile. L.V.

FATS CHRISTMAS PARTY

The Australian Reptile Park has invited all FATS members over! Sunday 12th December – arrive 11 am for a 12 noon Christmas BBQ and party. Bring your BBQ food, and bring your FATS membership card for free admission to the Park. Meet the other herp societies there as well. Our thanks to the Weigel family for the generous invitation. L.V.

www.sofar.hl.com.au
sofar@hunterlink.net.au



FOR YOUR CALENDAR

Frog talks on Radio 2RRR: As always, every Friday 3 pm on 88.5 FM.

Xmas party: 12.12. at Australian Reptile Park.

Next Frogmobile appearance at Centennial Park: Sunday, 23 January, 11 am – 4 pm. Helpers needed (9371 9129 or 0419 249 729).

Australia Day community festival at Menai, organised by Rotary Club: Wednesday, 26 January, with Frogmobile there from 11 am to 5 pm. Helpers needed.

Frog husbandry and hygiene conference in Melbourne, 11 – 14 December, www.frogs.org.au. L.V.

THE S.O.F.A.R. EXPO

The Society of Frogs and Reptiles is where you go to if you live around Newcastle. They are a thriving group with close ties to FATS and with enviable permanent club accommodation in the Wetlands Centre, right at the edge of Hexham swamp at Shortland. Last Sunday (21.11.) they held their annual Frog and Reptile Expo there.

That this was no backwater dawned on me when I saw the vast car park, with lots of parking attendants and crowds streaming from there into the building to pay their admission fees. (Ten dollar tickets – FATS could learn from that.) Inside the visitors centre, large display tanks and cages, and heaps of them, and displays of all kinds. And FATS leaflets, too. Outside, there was a Dixieland band, two BBQ stalls and two reptile pits with non-stop shows. For kids there was dip netting around the lake; there was canoeing; there were guided wetland walks; there were plant stalls and the more esoteric stalls – frozen mice were clearly as big a drawcard as ice cream.

Then there were the talks in the Wetlands theatre: Gerry Swan on reptiles that had fallen into a giant oil pipeline trench in Queensland; Simon Watharow on keeping reptiles; yours truly on frog keeping and Robert Wood on frog ponds. Robert's slides of his many backyard ponds were truly spectacular. Everything is overgrown like a lush jungle, especially the pond edges, and looks natural even when a pond is partly empty (just the look I am after, for ponds that can also store rainwater.)

Robert then built for his garden frogs a Wendy House (he says for his kids) and a huge pirate ship that towers over the neighbourhood. And high up in the palm tree crown is a net across the garden, to keep the magpies from the frogs. That garden has character. Oh boy, and frogs! Congratulations, S.O.F.A.R., that was a hell of a show. L.V.

Marion Anstis's book

"Tadpoles of South-eastern Australia"
Is available at the FATS meeting for a special Christmas price of \$30

DOWN THE CREEK WITHOUT A TORCH

Field Trip 20.11.2004

Royal National Park. - Ken Griffiths, leader.

Our first daytime field trip was almost frogless. Grant, sharp-eyed as ever, did find one *Crinia signifera*. But we weren't there to look for frogs. Habitat, tadpoles, frog predators and prey were our focus.

The habitat, the beautiful sandstone woodland of Heathcote Brook and Kangaroo Creek was splendid with new leaf growth.

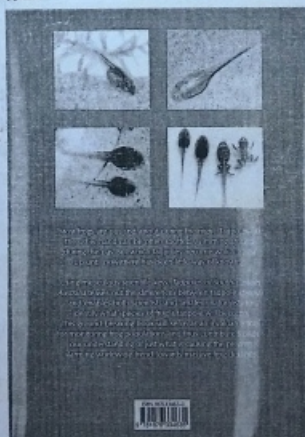
The local frogs, *Litoria lesueuri* and *Litoria phyllochroa* like flowing streams and breed after rain. There were tadpoles of both species all the way down the creek. Tadpoles of *L. lesueuri*, gold and dark, are well camouflaged swimming over the sandstone. *L. phyllochroa* tads look darker and broader.

The frogs forage widely at night. During the day *L. phyllochroa* hides in vegetation. *L. lesueuri* is often found secreted under small sandstone ledges by creek sides.

We were looking through the vegetation when we heard a squeak and a rustle. Out from under trees by boulders in the creek bed flew a Collared Sparrowhawk, a small bird or nestling in one talon. (Thanks Robert for identification) Probably nesting nearby, it perched in a tall tree long enough for binoculars to be well trained. No wonder most frogs are nocturnal!

Ken set an aerobic fitness test on the steep track from the creek up to the fire trail. We passed in reasonable time. There were dried remains of a bootlace orchid on a large tree; its southern limit said Ken. Near the end of the fire trail was another visual treat, a magnificent Woody Pear *Xylomelum pyriforme* covered in brown fruit.

The day was calm, cool and overcast --- ideal. There will be more tadpoling and habitat trips. Watch this space. **Punia Jeffery**

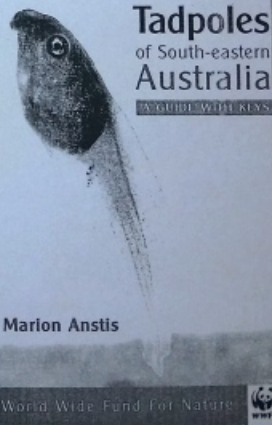


Tadpoles
of South-eastern
Australia

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Anstis

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ISBN



Tadpoles
of South-eastern
Australia
A GUIDE WITH ILLUSTRATIONS

Marion Anstis

World Wide Fund for Nature

WWF

What you always wanted to know about Germany's Herpetofauna but you were to afraid to ask...



even get close to it because there was a big snake inside, feeding on frogs and small kids I was told.

Frogs I knew from a comic style book I got from my sister, these animals were supposed to be green and wear 'salamander shoes'. The book was published by a German shoe manufacturer called 'Salamander Schuhe' to support and advertise their products. All the featured animals were native to Germany, they had adventures and traveled the world. The main motto was that during their adventures they were always saved because they were wearing salamander shoes. The text was written as a rhyme and easy to remember for kids and all small kids loved the books. At this stage I was still too young to read, but being told there is a snake just triggered my (now lifelong) interest in this kind of animal.

During the last field trip to Jervis Bay I mentioned to Arthur over dinner, that when I grew up in Europe all books referred to Australian frogs as 'southern frogs' (Süd Frösche) and European frogs as 'real frogs' (Echte Frösche). Arthur looked at me and responded: "You should hold a talk about that during the next FATS meeting - what do you think?" That was my first mistake.

Everyone who attended the last FATS meeting in October - yes the one talk that was supported by European style weather, heavy rain all day long - provided a small glance at what I was up to while growing up in a small village called Holzlar, close to Bonn. "Holz" is German for wood and "lar" is an old German word referring to bog or swamp. My father had nothing but trouble with the latter word when he started to build his house since the foundation virtually disappeared in a swamp over a weekend. It took him 9 years to finish the house, several times he was close to give up, sell the bloody swamp and move somewhere else. Lucky for me it was perfect frogging ground.

Until the house was ready, we lived with my aunt and grandfather in his house, just a couple of streets away, he encountered the same water problems just 10 years before while building this house.

In Germany all houses are build with a basement deep in the ground for storage and central heating. This basement has the footprint of the house and is about 3 meters deep. My grandfather's next door neighbour started to dig out a deep foundation around the time when I was born and he ran out of luck because ground water filled up the pit in no time at all. He eventually left it as a big pond and water source for his construction site and started to build his house further up his property on higher ground.

So although I had a nice pond next door for the first years of my life, every adult in the house made sure I would never

The first interesting animal I encountered was the slow-worm (*Anguis fragilis* - Blindschleiche) and I found it at a construction site nearby. A slow-worm is a legless lizard and at first I thought what a lot of people still believe today 'It's a snake!. I asked my father and he informed me what kind of animal it was, but not to touch it and not to disturb it any further.

Before I started researching for this presentation I never even considered what these animals were called in English. But it's quite interesting how much the names and meaning can differ. For example in German we would call blanks or dummy ammunition = blind ammunition (Blinde Munition in German) and blind referring to fake or harmless, in straight translation Blindschleiche would be a 'harmless crawler'.

Even today people kill these lovely reptiles because they believe it's a snake and a lot are killed by lawn-mowers as well. Luckily in the mid 1970's people were encouraged to create gardens that attract native reptiles and amphibians therefore creating a natural pest control and we saw a lot more of them.

The courtship of *Anguis fragilis* looks like a big fight and both animals are completely tangled up, this species gives birth to live young.

In 1969 the house was finally finished, when we moved there I found lots of sand lizards, (*Lacerta agilis* - Zauneidechse) Zaun = fence, Eidechse = lizard, and these quick lizards loved to sunbathe on wooden fence posts. I caught them to have a closer look, but after one shed its tail in the process I ran home crying since I thought I killed it. My parents had some good animal books and after further reading by my mother, we found out what happened. Like here in Australia if these animals are in danger they can detach part of their tail to escape - it obviously worked for the one I tried to catch all those years ago. Later I even found a *Lacerta agilis* with two tails, where the tail never fully detached but still a new tail grew out.



Today this species is not common any longer because of habitat loss and DDT (used up to the early 1970's), but on the cemetery in Holzlar a healthy population still exists. The eggs are very similar to the sun skinks here in Australia, but slightly bigger. The animal itself would have the same size and appearance as the water skink.

The forest skink, (*Lacerta vivipara* or *Zootoca vivipara* - Bergeidechse) Berg = mountain and Eidechse = lizard, was very common on the edge of the nearby forest, slightly smaller but much faster. My mother could not wait for me to go to school, she was sick and tired of reading everything we had in books about reptiles. Little would she have known that her trouble was just about to start.

In 1971 I was forced to go to school, forced in the sense that I didn't want to go because it would interfere with the life I got so used to. And forced - because my parents told me the police will pick me up if I didn't go. Before school it was great to play with friends in the forest all day. Kindergarten which started a year earlier already cut my life in half because now we only could play in the afternoon! School would reduce this time even further because of homework (little did I know how much the time was cut during high school, apprenticeship and working life...).

During my first day at school some kid brought in a big glass with something inside that looked to me like a lizard that can live under water. I found out what I just saw was called a Molch (newt). The same afternoon my new schoolmates and I went to the next pond to catch some of these new animals. Lucky for us the next pond was just 5 minutes (by foot not by car for our very young readers) up the road from school.

Anyway we found some newts that day and brought these home to show my parents, but for some unknown reason they were not as excited as I was. Needless to say I had to return the animals to the same location.

Palmate newt (*Triturus helveticus* - Fadenmolch), smooth or common newt (*Triturus vulgaris* - Teichmolch), great crested newt (*Triturus cristatus* - Kammolch) were the common species in that pond. Because the school term in Germany starts after the summer break in August/September we were just lucky to find any newt at all. Newt season starts in early spring and since I now finally learned to read and write we used the local library to extend our knowledge about amphibians and reptiles.

Just behind the school was the local creek and we discovered small larvae about around Easter. These were dark and well camouflaged. We caught some to take home and were surprised about the changes that happened after a couple of months. Yellow spots appeared all over the skin, we had found young fire salamanders (*Salamandra salamandra* - Feuersalamander). The name unfortunately refers to the experience that some people had while starting a wood fire, suddenly these poor creatures would scramble out of the fire. Their hibernation habitat during winter ended up as firewood for another species.

Common Toad egg mass - *Bufo bufo* - Erdkrote



Yellow-bellied Toad – *Bombina variegata* – Gelbbauchunke

Salamanders are poisonous and pets are at risk like they are here with the cane toad.

The most colourful German newt I found was the alpine newt (*Triturus alpestris* - Bergmolch). Like I said during the FATS presentation, my friends and I thought the colour photos were fake, but to our surprise the newt was as colourful as shown in the photos, a real jewel.

Every spring after the first warm rain the ponds and forests came back to life. A very old German saying states 'it's raining frogs'. People stated only what they saw, warm rain and suddenly frogs and toads were everywhere. Now we all know what happens, but the saying survived. This first warm rain in spring is the trigger for some amphibians to end hibernation.

Common frog, (*Rana temporaria* - Grasfrosch), is the first to show up. During a harsh winter we saw this species swimming around under the ice while we were ice skating. The spawn is like pudding and tadpoles hatch after 2-3 weeks.

Rana temporaria chooses the same living environment as the striped marsh frog here in Australia. We often took spawn and released the tadpoles to the same location just before metamorphosis was completed.

In May 1986 the radioactive cloud from the Chernobyl nuclear power plant 2500 km away reached Western Europe 4 days after the explosion. I had never encountered so many deformed and crippled tadpoles and metamorphs in my life shortly after that incident!

Common toad, (*Bufo bufo* - Erdkröte), shows up in spring around the same time as *Rana temporaria*. This toad always returns to the same breeding ground and moves long distances over land even in amplexus. Over the last 40 years Germany and the industrial growth called the 'Wirtschaftswunder' resulted in new developments, new roads and housing estates cutting forests virtually in half. Suddenly *Bufo bufo* had to cross busy roads with devastating consequences. To counteract the problem roads were lined with toad fences (where possible roads were closed from dusk till dawn) and the animals were carried across the road by volunteers.

Natterjack Toad *Bufo calamita* -

Kreuzkrote



Fire-bellied Toad – *Bombina bombina* - Rotbauchunke



This is a very time consuming effort and had to be performed twice a year, the second time in autumn when the animals returned to their hibernation habitats. Buckets in the ground along the fences collect the animals that desperately try to overcome this small plastic fence. Because they can't climb it they move along it to find a gap and consequently fall into the buckets. Unfortunately badgers and hedgehogs learned very fast that the buckets are a quick and easy smorgasbord. Nowadays tunnels or pipes under the road are the way to go.

The male toad grabs everything in a move to find a partner, I once found a bundle of toads 24 males and one female. We put our fingers in front of male *Bufo bufo* and it was not easy to remove them afterwards. Other animals were in danger as drowned salamanders and grass frogs were very common. These poor creatures had been grabbed by male *Bufo bufo* and they drowned because they could not free themselves.

Around May the pond 5 minutes up the road from school greeted us with a new sound. Edible frog or water frogs (*Rana lessonae* - Wasserfrosch) are the last to emerge after winter. These are the green frogs I saw in that children's comic book. I don't want to go into too much detail, but there are three subspecies that can interbreed and all this information would blow out the frame of this report. Their calls were deafening and the frogs fought for the best spot in the sun.

In Australia we would say don't be a chicken, the German saying is don't be a frog ('Sei kein Frosch'). This must refer to *Rana lessonae* because when you approach a pond this species suddenly leaps into the air and dives straight into the water. At the first sign of trouble *Rana lessonae* uses its powerful hind legs to escape into the safe water.

To catch these frogs we had to see where they would hide in the mud after hitting the water. You then grab a hand full of mud in the hope you've got the frog as well and put it in a huge bucket. We found out very soon, no bucket was big enough. Even when half filled with water the frog

leaped out of the bucket and headed this time for deeper water.

But this frog is very curious. During summer after school we tried to get our clothes dry again after a swim in the pond and the frogs were really interested in the wooden sticks we put on the water. The more we moved the sticks the more the frogs were attracted. During this time we could observe the great hunting skills this agile frog possesses. This Frog lives the full summer in the water and only migrates during heavy rain if conditions in the pond deteriorate or the habitat is lost.

Around the same time we found another frog. This old clay pit we loved to play in had so many different habitats no wonder it supported so many species. Agile frog, (*Rana dalmatina* - Springfrosch), would live in the high grass surrounding the pond. Very similar to *Rana temporaria*, but from the library books we knew if the hind legs are longer than usual it is *Rana dalmatina*. This frog could jump 1 metre high and 2 metres far and would only spend a short time in the water during mating. Very rare now and even back then, the word *dalmatina* must relate to the spots it displays.



Oral disks of *Rana dalmatina* tadpole Ref Wolf-Eberhard Engelmann "Lurche und Kriechtiere Europas" 1985

Not far away from the pond, were little puddles inhabited by yellow-bellied toads (*Bombina variegata* - Gelbbauchunke). I realised that these little 'frogs' looked and behaved very differently to everything we had encountered so far. They lived all summer in water but only in very small puddles, the pupil was heart shaped, and the body didn't look like a frog.

When caught *Bombina variegata* would either turn over on its back and display a yellow striped underside or would raise front and hind legs to show off the yellow colour. What I had found was that yellow creature from that 'Salamander Shoes' book!

To call evil or doomsday in German is 'Unkenrufe', the call of *Bombina variegata*. The library books revealed never to put this species together in the same bag or bucket with anything else since they are very poisonous, the bright yellow colour on their belly should have been a giveaway.

This species suffered a great decline because of habitat loss, these little toads rely on the puddles created by tractors getting bogged, but most of forest and vineyard roads were modernised from dirt to bitumen.

In the Summer of 1974 my friends and I encountered something I thought I would never come across again.

One afternoon a group of students showed up at 'our' pond. They started to fish for tadpoles and after some were caught they placed these in big jars with clean water so you could see them from all sides. Then one of the students took a big book out of his backpack and searched for some pages. We asked the students what they planned to do with the tadpole and to our astonishment explained to us their task was to find out what species are living in this pond. So we told the students what we have had come across so far and where.

The students looked very surprised but we were even more surprised after we were shown the book, it was full of tadpole drawings from all angles and contained especially detailed pages of oral disc types. FATS committee member Marion Anstis' book "Tadpoles of South-eastern Australia" reminds me all the time of these students.

Midwife toad, (*Alytes obstetricans* - *Geburtshelferkröte*), is one the most amazing creatures in Germany. After the female spawns the males carry the eggs on their hind legs until these hatch and are placed back into the water. This was the last amphibian species we found in the clay pit. This species is only nocturnal and we discovered a male while turning over clay and rocks.

Years later I found out that *Alytes obstetricans* moved into backyards and to pinpoint the location at night I simulated the call of the male, it's a single whistle.

In 1975 a company started to fill in the clay pit. *Bombina variegata* was the first one to disappear. Although it took years to fill it completely, year after year more species disappeared. I spoke to the Mayor of Bonn, during his visit to Holzlar, but he told us that the contract to fill in the old clay pit is binding. But we should not be worried because Bonn would create a new pond as a replacement in a small area of the clay pit left uncovered. And what a pond that was - for recreational fishing - a huge lake full of fish! At that time Bonn's slogan was "Bonn - city with a heart". We extended the slogan: "...but without a brain!"

The only two species I never encountered in the clay pit were *Hyla arborea* and *Pelobates fuscus*. Most of the other species are active day and night so these were easy to observe. But as young kids we had to be home by 17:30 and were not allowed to be at the pond in the dark. Since we had no watches at this stage we never knew what time it was. That's where my other interest came in very handy, I started to become interested in civil aviation and I knew each day at 17:05 a Trident from British Airways would fly over on the way to London. The noise level was deafening and you couldn't miss it, but every time British Airways was late so were we!

I never found the European spadefoot at all (*Pelobates fuscus* - *Knoblauchkröte*). The German name relates to the smell a *Pelobates fuscus* generates when caught. Knoblauch = garlic, Kröte = toad. Tadpoles of *Pelobates*

fuscus grow up to 16 cm long and we saw some very big tadpoles in that pond, perhaps the students might have known ...

European tree frog (*Hyla arborea* Laubfrosch) is Germany's only tree frog, I only found this little frog on holidays in southern France and on the Island of Corsica.

Back to my home village: a small general Aviation airport is located about 4 km away from Holzlar. As soon as we had push bikes, we went there to observe the aircrafts and helicopters. It's a very sandy area and we found natterjack toads, (*Bufo calamita* Kreuzkröte) Kreuz = cross, Kröte = toad, the cross is relating to the yellow line on the back.

In 2006 the next big German catholic church meeting will be celebrated close to this airport. Because the pope will be attending it was planned to create a big hill so everyone can see the pope. But the natterjacks are still there and at the moment Germany's EPA and the church work on a solution to protect *Bufo Calamita* from being trampled to death by millions of religious people.

The grass snake, (*Natrix natrix* - Ringelnatter), is the only snake I encountered in our area. These animals feed on frogs and are formidable swimmers. I brought one home to show my mother because she thought I was referring to *Anguis fragilis*. My mothers didn't like it much because it was a real snake but my father was very surprised to see *Natrix natrix* was still in the area.

In October 1986 I had to join the German Army for 15 months. The only thing I got out of the time spent with the army was the last chance to see some old Saab35 fighter jets from the Royal Danish Air Force and to encounter two species of amphibians found only in northern Germany. I was stationed in far northern Germany and during exercises in trench warfare I found fire-bellied toads (*Bombina bombina* - Rotbauchunke) and moor frog (*Rana arvalis* - Moorfrosch). I was very thrilled to finally find these animals, but my superior officers did not share my enthusiasm! On the other hand, it was interesting to learn that nobody had ever heard about the animals I retrieved from the trenches.



Fire-bellied Toad - *Bombina bombina* - Rotbauchunke



Sardinia Painted Frog – *Discoglossus sardus* - Gemalter Scheibenzungler

Bombina bombina is the northern cousin of *Bombina variegata*. *Rana arvalis* is in appearance like *Rana temporaria* but has a very pale colour. During courtship the males display an amazing bright blue colour.

In 1986 I visited Corsica again and roaming around at night I found a green toad, (*Bufo viridis* - Wechselkröte), Wechsel = change, the most beautiful toad I had seen so far. It can move very fast and was only 200 meters away from the ocean, this individual was at the same spot each night.

That covers all the amphibians I have encountered and you could encounter in Germany. Although Germany tries to do the best to protect all native animals the worldwide trend of decline unfortunately doesn't stop in Germany either.

Now, back to mistakes (remember the beginning?), the second mistake I made is thinking anyone would be brave enough reading through this all and survive!! I will probably be banned from future fieldtrips ...**Andre Rank**

European Spadefoot – *Pelobates fuscus* - knoblauchkrote



A new on-line resource is available for learning or refreshing frog call identification skills for the eastern United States. www.pwrc.usgs.gov/frogquiz. Are you ready to test your skills? Use the Public Quiz section to challenge yourself to a series of questions. You can test yourself multiple times and experience a unique quiz each time, as hundreds of sound files exist for each state. Linda Weir USGS NAAMP Coordinator North American Amphibian Monitoring Program (NAAMP) USGS Patuxent Wildlife Research Center naamp@usgs.gov

TADPOLES AT BOBBIN HEAD

On Sunday 7th November Wendy Grimm from FATS and Margarita Clayton from National Parks Chase Alive Volunteers presented the Frog Week talk at Bobbin Head in Ku-Ring-Gai National Park.



The audience were an enthusiastic group of primary school age and younger children. Using several posters of frogs and Margarita playing the frog calls the children were presented with the common frogs of the Sydney region. Margarita also had striped marsh tadpoles on display.

The environmental requirements of clean water and habitat were stressed and for the parents the need to have frogs identified by groups such as FATS before assuming a warty frog was a cane toad.

After Wendy's talk the children were given a puppet show on environmental issues by Kerrie Yates also a Parks volunteer.

On the mangrove walk the children said they saw tadpoles although these were fish fry.

Several adults took advantage of FATS present to ask questions on general frog keeping techniques.

Photo of Park Volunteers (Wendy Klotz, Kerrie Yates, Jeff Cole, Margarita Clayton, Jeannie Davidson) and Wendy Grimm



"WILDLIFE HEALTH IN A SHRINKING WORLD: ECOLOGY, MANAGEMENT AND CONSERVATION"

International Wildlife Disease Association Conference, 26 June to 1 July 2005, Cairns, Australia. The International Wildlife Disease Association Conference will be held in Australia for the first time since 1981!
<http://www.rainforestcrc.jcu.edu.au/events/conferences.htm>
 Secretariat and registrations: Shannon Hogan
 Rainforest CRC James Cook University
Shannon.Hogan@jcu.edu.au

A brief- but interesting account of some recent research undertaken by Queensland refer:
<http://www.uq.edu.au/news/index.phtml?article=5998>
 Jeff Crocombe australianherps@yahoo.com

This may be of interest to those who are concerned with conservation of aquatic species. It's a video of a lecture on where our caffeine, pharmaceuticals and household chemicals end up, and the effects this can have on our aquatic wildlife.
http://www.clw.csiro.au/video_html/danakolpin.html
 Unfortunately I couldn't find a transcript, Steve Weir

SYDNEY METROPOLITAN STRATEGY DISCUSSION

The Minister for Infrastructure, Planning and Natural Resources has recently released a Discussion Paper on the Sydney Metropolitan Strategy. The Sydney Metropolitan Strategy will provide a framework for the management of growth and sustainability in the Greater Sydney Metropolitan Region over the next 30 years. A key area of concern for NCC is the protection of Sydney's iconic natural values. Residents of Sydney must demand clear actions to prevent and manage the threats to urban ecosystems. NCC considers the following actions will result in good conservation outcomes for Sydney:

1. Completed mapping of the existing native vegetation in Sydney.
2. A comprehensive assessment of all publicly owned land in the region.
3. The development of riparian and native vegetation policies and measures that ensure the long-term protection of all significant native species, species habitats and ecological communities.
4. An undertaking that development in Sydney will not exceed the region's capacity to handle increased infrastructure due to salinity and water management constraints.

To have your say <http://www.metrostrategy.nsw.gov.au> and follow the links to the 'Your City Your Say' section of the website, or write directly to the Minister for Planning and Natural Resources, the Hon Craig Knowles, GPO Box 3927, Sydney NSW 2001

<http://www.metrostrategy.nsw.gov.au.nature>
 Conservation Council Email: ncc@nccnsw.org.au



Lend Lease have lodged two Development Applications with Blacktown City Council recently. BCC have not notified the public that DA Part Lot 2 1038166 has been lodged and that comment can be made on it. This policy means that all of Lend Leases subdivisions of the Eastern precinct (there are 4 of them and one is 92 ha) will be hidden from the public and will receive little public scrutiny. When BCC approved the Eastern Precinct plan in Feb 2004 (the rowdy crowd night) they also approved that all DA's be determined under delegated authority given to the General Manager, meaning that the DA's will be approved behind closed doors by Glennys James the Director of Planning and not by Councillors at a Council meeting. This is how some Councils are assisting developers and BCC's policy of not exhibiting subdivision DA's is an appalling example of how developer friendly they are. Apparently the entire subdivision of Newbury was approved this way with no public consultation. But guess what? The DA for the Sales Office required BCC to notify local residents. What a sham. The nuts and bolts of the situation is that BCC may have breached the NSW Planning and Assessment Act 1979 and Planning Regulation 2000. Why? Because Lend Leases 13ha subdivision DA proposes to clear 4ha of Cumberland Plain Woodland, 4000 *Pultanaea parviflora*, 1000 *Dillwynia tenuifolia*, 4 *Micromyrtus minutiflora* and habitat for the Cumberland Land Snail. It clearly will affect threatened species.

We claim that this DA should be assessed as Threatened Species Development because Lend Lease provided a Species Impact Statement with their DA. Under 78A (8) (b) of the EP&A Act 1979 A DA must be accompanied by a Species Impact Statement if the application is likely to significantly affect threatened species, populations or ecological communities, or their habitats.

The Planning Regulations state that 'threatened species development' is that referred to by section 78A (8) (b) of the EP&A Act 1979. Threatened Species Development triggers section 89 (3) (a) of the Planning Regs which says that the consent authority (BCC) must give written notice that the DA and its documents can be viewed by the public at their office for 30 days commencing on the day it was first published in the newspaper.

Please write to BCC and its Councillors to question this whole developer friendly process. If you write to them or call remember to include in your q's of them why this is not being assessed as threatened species development? There appears to be a certain amount of hypocrisy shown by BCC in that small remnants of CPW elsewhere in the city are being protected yet at Lend Leases ADI Site it can be destroyed no problem - clearing 4ha of CPW out of a 13ha subdivision is substantial. All remnants of CPW are important and have high conservation value. Contact Glennys James Glennys.James@blacktown.nsw.gov.au Ian Reynolds Director General ian.reynolds@blacktown.nsw.gov.au Regards,
Geoff Brown ADI RAG

Frog glue a boon for dicky knees

STICKY secretions from angry Australian frogs could lead to a breakthrough in the way doctors help wounds repair, scientists said yesterday.

CSIRO and University of Adelaide researchers have found that, when provoked, some native Australian frogs secrete a sticky solution that sets rapidly and adheres to a wide range of materials, including flesh, cartilage, wood, plastic and glass.

The researchers now hope to mimic the "frog glue" to produce a medical adhesive.

"The exudate changes rapidly into a tacky elastic solid that's feverishly sticky," CSIRO biochemist John

Ramshaw said. "There's a real shortage of good medical adhesives and this seems to provide an opportunity."

Frog glue could be used to speed up the healing process for flesh wounds, he said, but the real advantage would be in repairing internal damage.

"For example, we could look at this as potential material for repairing the knee meniscal tissue [cartilage], which gets torn a lot in athletes," Dr Ramshaw said.

"It's certainly well worthwhile, particularly for young people if they tear a meniscus, to hold it together and hopefully get it to repair."

"If you remove the meniscus, you're at a much greater risk of getting arthritis later in life."

Other medical glues are already in use but Dr Ramshaw said frog glue possessed several advantages over existing technology.

"Some other adhesives that are approved for topical [external] application have toxicity issues [when used internally], a lot tend to be very brittle and also they're not porous," he explained.

"Internally, you need things where cells can migrate through the adhesive so the nutrients and oxygen and everything can diffuse into the cells. Frog glue has this porous

ity, which is a great advantage for internal medicine."

The glue has yet to be tested in humans, but has proved successful when used to repair knee cartilage in sheep.

Dr Ramshaw and colleagues, who plan to present their frog glue research at a biological sciences conference in Perth this week, hope to create a synthetic version that would be more suitable for mass production.

"We're getting the molecular data so we can make a commercial product which has the same properties and that also allows us to adapt things," he said. "We would not be looking at farming frogs."

AAP



THE AUSTRALIAN — Wednesday September 29 2004

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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 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.

We hold six informative, informal, topical and practical meetings each year at the Australian Museum, Sydney, William St entrance.

ALERT - CHANGE OF FATS MEETING DAYS - ALERT

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).

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.





We would like to remind members that all children under 16 years attending field-trips **MUST** be supervised by an adult. Such supervision extends not only to evening frogging activities but also to all daytime activities (in the case of weekend camp-outs). **Supervision must be exercised CONTINUOUSLY, WITHOUT INTERRUPTION, for the entire duration of the field-trip.** Under NO circumstances are field-trip leaders and/or FATS committee members able to accept responsibility for children on field-trips or any other FATS event (meetings, exhibitions and so on). It must be made clear that there are both legal & insurance considerations. Please do not ask for or expect exceptions to this rule. We would greatly appreciate the co-operation of all members in this matter.

THE RULE IS : 'NO ADULT SUPERVISION - NO CHILD PARTICIPATION'.

The FATS Committee.

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

December 4. 8-45 p.m. Castlereagh Nature Reserve. Leader : Graham Turner.

Meet at the cnr. of The Northern Rd. & Whitegates Rd, Londonderry.

Forged out of the gravels of ancient riverbeds, the Castlereagh woodlands are easily distinguished from the surrounding vegetation. The ephemeral watercourses that traverse this area play host to an unusual suite of frog species. Tonight, we will look at the ancestral Hawkesbury-Nepean River system & we will examine the continuing influence it exerts over the froglife of this region. Graham, a field biologist with State Forests, has an impressive & broad-ranging portfolio of field research across NSW. He is equally at home discussing the ecology of birds, frogs or reptiles.

December 12. 9-00 a.m. Australian Reptile Park, Somersby. Christmas Party.

The Australian Reptile Park is having a Christmas party & all herpetological groups are invited. Gates open at 9-00am but you may arrive anytime. Show your FATS membership card for free entry. This is your opportunity to check out the latest additions to the exhibits. Bring your own food & drink. BBQ facilities available. Bookings are not required but you must produce your membership card to gain free admission.

January 15. 8-00 p.m. Marramarra National Park. Leader : Grant Webster.

Meet at the cnr. of Cobah Rd. & Arcadia Rd, Arcadia (near St. Benedicts Monastery). Short convoy to site.

On the doorstep of the Greater Sydney Region are many areas of outstanding natural beauty. These areas escape the heavy traffic, pedestrian usage & 'improvements' that so often define the more popular National Parks. As a result, these more distant & expansive parks offer a diversity unmatched by their inner city rivals. Rarely explored by most, Marramarra is one such park. Tonight, Grant leads his first field trip for us & will introduce us to this park. Despite his tender years, Grant is a prodigious frogging talent & has a habit of unearthing even the most elusive of frog species.

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. She 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).

***** 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.



17. 6. 2004

FATS ANNOUNCEMENT TO ALL MEMBERS

This mailout is in addition to your last FrogCall newsletter, FC71. It contains two important messages:

- A correction on the recommended strength of frog medication.
- Notice of AGM (overleaf)

Enclosed is the new Frogfacts No. 9 "Frogs as Bio-Indicators".

(The article at the bottom of this page is from the Macarthur Chronicle of 27.4.04.)

CORRECTION TO FROG MEDICATION ARTICLE

In the space below is a correction label. Please peel it off and place it on page 5 of FrogCall No. 71 (the one you got at the beginning of this month):

ERRATA: The frog medication article on p. 5 of FC71 lists incorrect Aqua-Remedy concentrations.

Use the stated number of drops not in 500 ml but in 3 litres. Please put this sticker onto the same page.

A replacement article will be in the next issue. My apologies. L.V.

You may already know of my error from the announcement at the last meeting and/or from the email message to all the members who are on the FATS email list. But even if you do, or if you have no need for frog medication, please put the sticker on that page anyway. Because once something is printed, it might surface again in years to come and possibly harm someone's frogs then.

Many thanks, and my apologies.

L.V.

THE 20 different frog species found in the Macarthur area are under threat from a silent killer which is stalking Australia.

As the familiar chorus of croaks around the country's waterways has become increasingly quieter over the years, scientists finally have identified an insidious fungus as the key cause of declining frog numbers.

"It's catastrophic," Lothar Voigt, of the NSW Frog and Tadpole Study Group, said. "There are at least 20 frog species in the Macarthur area and about 27 in the wider Sydney area.

"At least half-a-dozen Sydney suburbs are badly infected."

Earlier this year, the independent NSW Scientific Committee made a final determination to list the infection of frogs by amphibian chytrid, causing the disease chytridomycosis, as a key threat.

Committee chairman Associate Professor Paul Adam described the fatal frog fungus as "a global epidemic".

The disease was first reported in Australia in 1998 following mass deaths of frogs in northern Queensland.

"Chytrid fungus spores attack the skin of frogs and spread rapidly. Many frogs die as a result of the infection," Associate Professor Adam said. "It is highly contagious in water and stream-breeding frogs are more likely to

be affected such as the threatened spotted frog and the giant burrowing frog."

The giant burrowing frog is found in and around the headwaters of the Georges River and, more specifically, Wedderburn.

Herpetologist Arthur White, who has completed much frog research in the Macarthur area, said chytrid had a major impact in

the district about 20 years ago. "There now are sporadic outbreaks, a bit like spot fires, because the fungus mutates and changes," he said.

The best action Macarthur area residents could take was to report obviously sick or dying frogs to the National Parks and Wildlife Service or the Frog Help Line on 0419 249 728.



FIGHT FOR SURVIVAL

- **WHAT:** fungus chytrid.
- **THREAT:** about 20 frog species in the Macarthur area.
- **HOW:** the fungus attacks the skin of frogs which can die as a result of the infection.

VERA BERTOLA

FATS Notice of AGM

The FATS meeting on the 6th of August 2004 will be preceded by a short Annual General Meeting. This meeting will only take about 30 minutes, starting at 7:00 pm. The agenda for the AGM will be:

1. Apologies/attendance
2. Minutes of previous AGM
3. President's Report
4. Treasurer's Report
5. Election of Office Bearers

President
Chairperson
Secretary
Treasurer
Membership Officer
Field Trip Co-ordinator
Publicity/Exhibitions Officer
Asst. Publ./Exhib Officer
Editorial Panel (editor + 2)
Quarantine Officer

6. General Business

All of the positions on the FATS executive will be vacated at that meeting and nominations are required for all of the above positions. If you would like to nominate someone (or yourself) for one of the positions, please fill in the nomination form below and mail it to the FATS PO Box by 5pm on the 5th of August. In making a nomination, you will need the person who is being nominated to agree to the nomination (and to sign the nomination). The nomination will also require a seconder. If you would like to serve on the FATS executive but are not sure how best to do this, contact any of the present executive (phone numbers are in FrogCall) and talk it over with them. You can make as many nominations as you wish. (However, each nominee can only accept a nomination for one position.)

Nomination Form

Position: _____

Nominee: (please print) _____

Signature of Nominee: _____ Date _____

Nominator: (please print) _____

Seconder: (please print) _____

Mail Nomination form to: FATS PO BOX 296 ROCKDALE NSW 2216.