

FROG CALL



THE FROG AND TADPOLE
STUDY GROUP OF NSW INC

NUMBER 28 - MARCH 1997
PO Box A2405
Sydney South NSW 2000

THE NEXT MEETING

Friday 4th April at 7:00 pm for a 7:30 start
at the Australian Museum (William St. entrance)
The meeting will finish by 9:30 with coffee afterwards.

SPEAKERS:

Main Speaker	Arthur White on Frogs of Western Australia
Second Speaker	Barbara Harvey N.T. Frog Excursion
Everybody	My 5 favourite frog slides (or 5 minutes - whichever comes first)

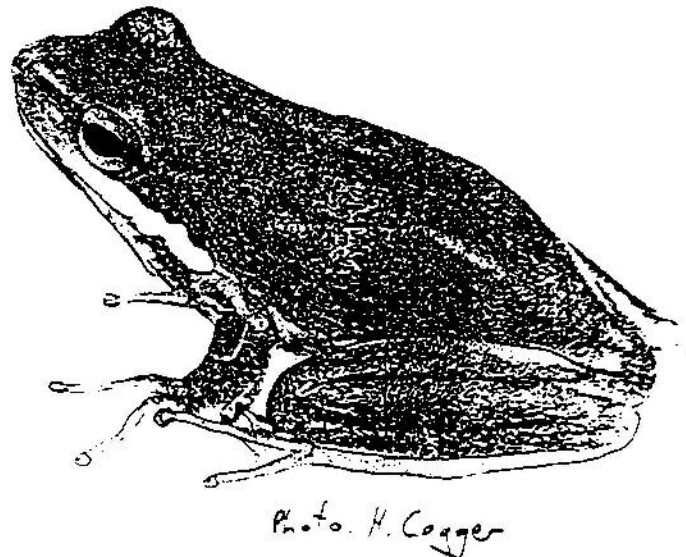
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REGULAR FEATURES

News and announcements, field trips, projects, refreshments!
Auction, discussions, gossip, welcome table, things you can buy!
Bring a visitor!

We hold six informative, informal, topical and practical meetings each year at the Australian Museum (William Street entrance) in Sydney. Meetings are held on the first Friday of every even month (February, April, June, August, Oct. and Dec.) at 7 pm for a 7:30 start. Visitors are welcome. We are actively involved in monitoring frog populations and in other frog studies, and we produce the newsletter *FROG CALL* and *FROGFACTS* information sheets.



THE LAST MEETING (6. 2. 97)

Tadpoles of the Sydney Region, lots and lots of them on slides, presented by Marion Anstis to a packed audience. Tadpoles, as most of us could see for the first time, differ considerably in colour, shape and habits. Even though Marion can identify most of them by sight, the task is surely too daunting for the rest of us. Maybe if I could see her slides again in slow motion ...

The Eastern Dwarf Tree Frog, *Litoria fallax*, is a little mostly green froggy common in the Sydney area. Karen Thumm introduced it to us, with a handout which is enclosed in this issue.

More slides - Jennifer on Green-thighed Tree Frogs that were calling madly last May at Casino Forest. Lothar Voigt on identifying tads from Mootwingee the hard way, by raising them up first, and on the FATS exhibit in the Museum's Discovery Space. Ken Griffiths with gaspingly beautiful frog shots from Nowra to Barren Grounds to the Watagan Mountains. He uses a 100mm macro lens, two flashguns and endless patience. Danny Wotherspoon had no slides, but instead a recipe against leeches: an antiseptic cream containing 5% tea tree oil. He also reported two Cane Toad finds along Putty Road north of Windsor - a 1995 one in the Currency Creek catchment and a 1997 one in the Howes Creek catchment.

The sandstone frog sculpture that's being raffled was lugged in by Martyn for all to see. Chris Benetts has generously donated a wonderful frog sculpture to the FATS Group for our raffle. Everybody started shouting for tickets, but of course there were not enough. We ended up keeping it till the next meeting when we'll have a second ticket book. So please bring your money and ticket butts with you again. In case you didn't know about this sculpture... **Ishi Buki Display Garden** Sculptural pieces are hand-crafted from sandstone. Call for an appointment on (02) 9970 6122 and view some of his sculptures at 220 Powderworks Road, Ingleside 2101.

The auction was sped through by Lothar. The bidding was fast and furious and pleasantly chaotic. Danny Wotherspoon conducted a children's auction, which was great fun, even if the kids needed to be restrained occasionally. The auction raked in a pleasant \$151. Our gratitude to both the donors and the donees!

Here are some: Lights from the *Sydney Aquarium* (Louis Petrucco, thanks), A "bog frog" from *Monica Wangmann*, An ornamental frog from *Ros Dight*, A snake poster from *Danny Wotherspoon*, An "American" fridge-magnet *Monica Wangmann*, Thalia from *Lothar*, Blue frogs from *Chris*, Mug from "Anon"

The Sydney Aquarium has donated lots of aquarium equipment which will be sold or raffled or auctioned over the next meetings. L.V.

NOTICE OF AGM

There will be an Annual General Meeting on the 6th of June.

Please find included a nomination form and job descriptions of all positions so that you can decide which position you will be wanting to nominate for!

FAULCONBRIDGE FROG FROLICS: A BLUE MOUNTAINS CELEBRATION OF FROG WEEK 1997

Join us for a weekend of fun and exploration of local frogs and their habitats. See the habitats of the rare and endangered frog species, showing how they live, and how they came to be threatened. You will actually participate in important Biodiversity Survey research and contribute to the National Parks and Wildlife Service database. So how do I get there?

This is a weekend package at Rose Lindsay Cottage Bed and Breakfast, where your host is a NPWS Discovery Ranger and professional naturalist. Cost is \$195 per adult twin share, maximum four couples or twin shares. BYO torches, the sites are not hard to get to and do not require much agility or fitness. Phone (047) 514273 to enroll.

Package inclusions: Two nights B&B, with three course cooked breakfasts, Lavish Friday night supper. Friday night frog-finding excursion. Site tour on Saturday to see the famous "Red-Crowned Court" development.

Frog-friendly Saturday dinner (early) at the Lazy Frog Restaurant, Faulconbridge!

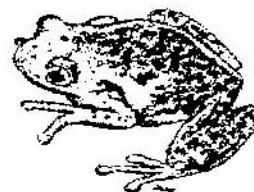
Followed by more frogging!

Late breakfast and checkout Sunday.

Dates: 31 Oct/1 Nov.; 7/8, 14/15, 21/22, 28/29 Nov. 1997, and for FATSG members anytime. **Just get a group together.**

(Now if this looks to the reader like an advertisement - it is!, This is because 10% of the cost to participants will go to FATSG for research into endangered frogs of the Blue Mountains. There are perks in it for you too, such as free membership to FATSG, with newsletter Frogcall and field trip news K.T).

Danny Wotherspoon



Book Review

with Lothar Voigt

FROGS AS PETS

T Tyler, M.J. (1996). *Frogs As Pets - A Guide to Keeping the Australian Green Tree Frog*, Graphic Print Group, 10 - 14 Kingston Ave., South Australia. \$13.95 plus \$2.50 postage and handling from the publisher. (A copy will be available for browsing at the meeting).

He's done it again, and clearly with effortless ease! This is not your ordinary ponderous beginner's book; there are useful bits in it for everybody. In only 28 pages, A5 and richly illustrated, there is no room to be comprehensive - and any attempt would have made it less entertaining.

The few American publications on this species don't contain any information on how it lives in its native habitat, which Mike Tyler's booklet rectifies. And refreshingly, after Mike deals with how it got saddled with its overseas name of White's Tree Frog, he then proceeds to call it Green Tree Frog again. Because this is our frog, not theirs!

The section on how to buy a Green Tree Frog in a pet shop is alas, not for us New South Welshies, but it does remind us that it is the most popular and most readily available pet frog elsewhere in the world. The housing section contains a recipe for making easy, foolproof cage lids - that alone may be worth the price of the book.

If you're past the stage of needing advice on lids, how about on sex hormones? Which ones and where to get them from if the frogs won't do it on their own? Or on treating the dreaded fungal skin infection? Or on how incoming water can pile up in the skin and lead to dropsy? Where else can you find that?

If anybody else would write that tadpoles exist well enough on boiled lettuce alone; or that Green Tree Frogs can live happily enough without calcium supplement, if anybody else showed photos of kids handling frogs with bone-dry hands and without any reminder to wash them (the hands, that is); or photos of rather overcrowded tadpoles without any comment - other than that their water should not be kept spotlessly clean - well, nobody else could get away with it. Tyler can. Because the proof, as the gourmet says, is in the eating. And his frogs are doing fine.

So what if kids rub their eyes with froggy fingers? They'll only do it once, and they will have learned something. So what if the tadpoles and frogs might have grown a bit bigger under a fussier regime? Same with our kids: don't we love the shorter ones just as much? The main thing is to keep them healthy and happy and well fed, and then the supplements are just the dusting on the cake.

Where Mike does go fussy is when he comes to removing chloramine from tap water for the tadpoles. His method, firstly to determine how much chloramine is present, and then to neutralise it with the correct amount of thiosulphate, is probably beyond the capabilities of the rotten test kits you get in aquarium shops and then beyond the capacity of most people to work out how much pure thiosulphate that corresponds to. Luckily, there are also easier ways.

Mike writes that supplementary heating of the frog cage will be needed "where room temperatures are below 10°C for long periods". Shouldn't that read 20°C? Maybe no wonder *Litoria caerulea* sometimes turns blue.

My final suggestion is for you to go out and get that little book, amend the 10 to a 20 as it probably should have been, and then settle down to a very pleasant read. L.V.

LOST IN THE LICENSING JUNGLE

Those of you with long memories will recall the meetings and the correspondence we frog people and the reptile people had with NP&WS. We've been trying to make the best of a messy situation: Frogs, tads and spawn, we were told, being protected, can't be collected from the wild and can't in future be kept without a licence. No point, we were told, going for exceptions, such as common species or tadpoles. The Minister even wrote back to us, stating (a) she won't have exemptions and (b) she won't meet with us (*Frogcall* issue 19).

Early last year the NP&WS was going to hand their submission about licences for frogs and reptiles to the Minister, as well as a parallel one for birds. That eventually happened, late last year, after it was rewritten several times. We were told that the next step is to get opinions from the community and the other stakeholders on it, before the Minister makes a decision.

So that's where it's at, it seems.

In the meantime, we're getting company. State Fisheries wants aquarium fish keepers licensed. Maybe not the little ones who breed a few guppies but that's still open to discussion. Their concerns are quite different though: There are legitimate worries about some of those tropical fish going feral, about noxious exotic fish not being bred and about fish diseases spreading to commercial food fish hatcheries. Licensing, which enables inspections, is probably inevitable. A different kettle of fish from the proposed licences for tadpoles! L.V.

WORLD ENVIRONMENT FAIR.

On Sunday, 1st of June, Newcastle City Council will co-ordinate a fair to celebrate World Environment Day. The FATS Group will participate in a display by Biological Sciences at Newcastle University (Dr Michael Mahony) and we are *calling on volunteers* to help person the stall.

Issues displayed will include Amphibians as indicators of Environmental Health, Declining Amphibians, Endangered Species, Recovery Plans and Threat Abatement, Survey and Community Involvement.



The Tadpole Page

with Lothar Voigt

Hi, kids! Have we got a whopping quiz for you! The trick is, there may (or may not) be more (or less) than one correct answer to each question. Too hard? Don't worry, the answers are hidden somewhere else in this issue of *Frogcall*. Ready - set - go!

1. What happens if you put large, fast tadpoles into a small tank that doesn't give them much swimming space?
 - They dart about and hide themselves.
 - They bang their heads but will be more careful next time.
 - They probably won't thrive and will start "thinning out".
2. Tadpoles that normally live in flowing water are called lotic. Those that usually occur in still water are called:
 - lentic
 - stillic
 - benthic
3. Tadpoles of tree frog species often have tails that:
 - have a "flagellum", a vibrating pointy tip.
 - have suction pads for climbing.
 - have a fin that starts further up the back, towards the front of the tadpole, than the fin of ground frogs.
4. What's good tucker for tads?
 - dead tadpoles.
 - lettuce that was frozen to make it mushy.
 - flaked fish food.
5. What happens if your tadpoles are ready to be released, but the original site where they came from and where they ought to go back to, is no longer there?
 - Release them somewhere else then, anywhere that looks suitable.
 - Release them at a suitable site as close to their vanished home site as possible.
 - Ring the Frogwatch Helpline (on 9371-9129 or if you can't get through, on 9476 2853) for advice.
6. What is the best way of releasing aquarium-reared taddies back into their home pond?
 - Float them in their plastic bag in the pond (in the shade of course) to equalise the temperature. Instead of then pouring them and their aquarium water into the pond from a great height, let them swim out by themselves. And make sure you're not releasing water plants that don't belong there.
 - Keep them shaded while gradually adding pond water - over at least 10 minutes - then gently pour them into a net away from the pond, rinse the net with pond water - again
- away from the pond - and then gently empty the net into the pond.
 - Gradually condition them to aged (dechloraminated) tap water before you leave home. At the site in the shade, gradually mix with pond water over at least 10 minutes (to equalise water composition as well as temperature). Then let them swim out by themselves.
7. What does it mean if you pour untreated tap water into your tadpole tank, and they don't die from it?
 - You were plain lucky, because on that day very little chloramine got through the pipes with your water. Maybe your home is near the end of a very long pipe system, and most of the chloramine got used up along the way.
 - You were plain lucky because you did only a slow and partial water change, so that much of the chlorine got used up in the tank, by attacking the bacteria and plants as well as the tadpoles: and much of the ammonia (the other part of the chloramine) got eaten by plants and bacteria before it could kill the tads.
 - The taddies didn't die but got sick and probably stopped growing for a while. Only, you couldn't tell they weren't feeling too good.
8. Flowing water and permanent still water often has fish in it, and they eat most kinds of tadpoles. Which water bodies are unlikely to contain fish?
 - temporary pools that got left behind after a flood.
 - temporary pools that filled up from rain or from local runoff.
 - permanent pools that stay filled by ground water.
9. Which are good conditions for raising tadpoles indoors?
 - some dirt including tad-poo on the tank bottom, clean water above, with regular partial water changes with conditioned water.
 - clean bottom, dirty water above.
 - water plants or undergravel filter or some other way of getting rid of "metabolic" ammonia.
10. The law in New South Wales on keeping tadpoles will probably be straightened out one day. Until that happens, what are you allowed to do now?
 - keep tadpoles from your captive-reared frogs.
 - keep tadpoles from your garden pond, if the parent frogs are captives because they can't get out of your garden, or if it's not safe for them to get out.
 - nobody's quite sure.

The answers, by the way, are tucked away in the Frogbits and Tadpieces section. If you didn't get all your answers right, you are just possibly not the only one. Maybe we'll have a question and answer session at a meeting one day, where you can turn the tables and quiz some of us groan-ups! L.V.

COMMON FROGS OF THE SYDNEY REGION

EASTERN DWARF TREE FROG *Litoria fallax*

Common tree frog in the Sydney Basin, which is likely to be encountered on excursions during most warmer months of the year. It can be heard calling from September to April.

Appearance

Eastern Dwarf Tree Frogs could sit comfortably on a 10c piece (up to 25 mm), and can be found in green or bronze colouring. There is a white stripe from below the eye to the base of the forearm. It can be distinguished from *Litoria phyllochroa*, the Leaf Green Tree Frog, by its smaller size, by its use of stems rather than leaves as perches (generally), by the fact that its pale face stripe is below the dark stripe on its face and by its less triangular head

Habitat

Generally found around dams, in swamps, or quiet patches on creeks, calling from the reeds or bank vegetation.

It is a "lettuce frog" rather than a "banana frog"; it has to be rescued regularly from greengrocers. They are also found in plant nurseries (M.R.)

Habit

It is diurnal as well as nocturnal, and will jump readily, if an attempt is made to catch it. It will also retreat to the other side of the leaf to avoid detection. (M.R.)

It has a very characteristic way of lying like a cylinder (M.R.) against the reed on which it is perched.

Litoria fallax is known to use hand signals. (Shane Gow pers. comm.). This could be part of territorial or aggressive behaviour. Males have been seen fighting.

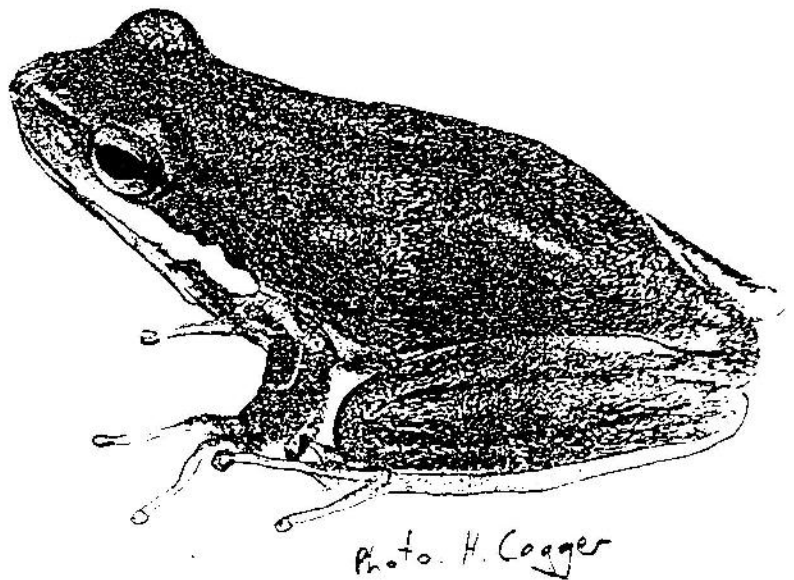
Call

Its call has been described as sounding like a corkscrew. It has a two part call. Data from overseas has stated that the two parts of two-part calls are often directed at different sexes. With *L. fallax*, it is assumed that the "pip"- part at the end is aimed at the other males as an aggressive part of the call. (M.R.)

Egg mass/Tadpole

Egg masses are small clusters around vegetation (M.A.). Each egg is very small. The tadpoles are surface feeders, with a wide fin and a long tip, typical of hylid frogs. (M.A.)

Thanks to Martyn Robinson (M.R.) and to Marion Anstis (M.A.) for their information.



FROGBITS AND TADPIECES

Did you know that it's against the law to pour aquarium water down a stormwater grid? It's OK to pour it down a sewer or to water the garden with it. But not down into the stormwater system, through which fish diseases, and fish spawn could spread more easily. I understand there is no ruling for frog and tadpole water. Until there is one, maybe we should each stick to it anyway. Sounds like a sensible idea.

Still about fish: One Queensland breeder kept sending fish down to local pet shops in bags with pond water with bits of algae floating in it, and with a few little black taddies amongst the fish. They were identified as Cane Toad tadpoles!

Prospect Reservoir now uses whacking big sand filters and also churns out water that is more alkaline than before. This makes the pipes last longer but maybe not your tadpoles. Check your pH if that's where your water comes from and if you're worried. (A pH around 6 or 7 is generally best - you can bring it down with some vinegar or up with bicarbonate, but then measure again.)

Martyn had a pH of 9.2, at least his tap water did, at Narraweena. Prospect water can't possibly be that bad. They probably installed a new concrete pipe.

Are you young at heart? Have you sneaked a look at the Tadpole Page in this issue? The kid stuff? All right, here's the answers: 1ac, 2a, 3ac, 4 all, 5bc, 6 good question, 7 all, 8b, 9ac, 10 who knows?

The ATLAS Wildlife System contains the NPWS data base on which animal species have been found where in NSW. The bird spotters have contributed several hundred thousand records to it; it's time the froggers started catching up! Peter Ewin of NPWS would love a copy of your accumulated FATS survey sheets, or better still, transcribed onto their forms. But he can cope with either. (Blank forms of both will be available at the next meeting.)

Six thousand copies of FATS membership forms were printed and distributed by the Australian Museum during their frog exhibition last year. Many thanks, dear Museum! It's good to know there are 5900-something people out there hovering on the verge of joining us.

Sydney Morning Herald Thursday February 27th, 1997 A disturbing article on page 5 by Margo Kingston. "Australia's publicly funded Environmental Defenders Offices (EDO) have been told they will be stripped of funding unless they stop legal action against State and Federal governments to enforce environmental laws."

This has disturbing implications because the EDOs have clout to force governments to follow their own Environmental Impact Assessment laws. The Attorney General Mr Williams considers the EDOs a "political campaign post." **J.R.**

Radio 2UE and Permaculture International magazine did the right thing by frogs wanting to live in people's gardens, courtesy of Martyn Robinson and Merinda Voigt respectively.

A rash of requests for *Frogfacts* leaflets was the immediate result.

The Visitors' Centre at Bicentennial Park is renowned for its frog- and FATS-friendliness. They keep a folder of *Frogfacts* for the public, and they have a great frog information display. For Frogweek they had our posters up, but no live frogs. But in January, when there was an opportunity to show overseas politicians what Streamwatch and Frogwatch are doing, Merinda and I dragged in the big frog display cages we had at the Museum. Trouble is, they get heavier every time. **L.V.**

FROGLOG Did you know that you can get "FROGLOG", the newsletter for the Declining Amphibian Populations Task Force through the internet on <http://acs-info.open.ac.uk/info/newsletters/FROGLOG.html>. The email address is DAPTF@open.ac.uk.

If you want a hard copy, please ask John W. Wilkinson, Dept. of Biology, The Open University, Walton Hall Milton Keynes, MK7 6AA, U.K. **K.T.**

QUACK Quality Assessment & Catchment Knowledge is a project run by Peter Coad of the Berowra Catchment Management Committee, The Hawkesbury Nepean Catchment Management Trust and the Hornsby Shire Council. Last year over eighty volunteers traveled to designated sites within the Berowra Creek catchment to take invertebrate samples and assess water quality. The data is being used to assess environmental health and identify catchment influences. You may want to know what that has to do with the FATS group? Well, Peter Coad has approached the FATS Group to help with inclusion of frog surveys in connection with water quality data. This data will be used to assist Hornsby Council in planning and management, and is being provided to the community as part of catchment education and for control of pollutants near the source.

This is an ideal opportunity for data on frogs to be related to water quality and possibly to identify some "signal" frog species as has been done for macroinvertebrates.

Please would any froggy people who are interested in helping train 60+ volunteers to take recordings and look for frogs, etc. contact Peter Coad on 9482 7455. This is potentially a wonderful project; the people involved are very friendly and keen to learn and we may end up with some more FATS members and converted froggers. **J.R.**

The Land and Environment Court (Justice Stein) has brought down a ruling that the Wetlands at Iron Gates near Evans Heads were destroyed in breach of consent conditions and that they have to be restored! It is being suggested that even roads and infrastructure will have to be removed. The SMH (7/3/97) reported that the Environmental Defender's Office (Ms Lisa Ogle) showed that the Council and the NPWS did nothing to stop the unlawful destruction. **K.T.**

The American Red-Eyed Tree Frog tads can "choose" to hatch early to avoid being eaten by snakes. Females attach their eggs to vegetation overhanging ponds. Once hatched the tads fall into the water to complete their development. If the eggs hatch too early as a response to snake attack, the tadpoles are more vulnerable to fish attack. Experiments done by Karen Warkentin of the University of Texas at Austin showed that the stimulus to induce hatching has to be very specific (not just moving the jelly, rain, or wind). Sliding forceps between the eggs an into the jelly may mimic the action of snake jaws and this makes them hatch rapidly.

Excerpts from an article by Laura Spinney in New Scientist 22 April 1995. This was sent to us by Norman Wake of Mona Vale.

Dave Stewart's Frog Call Tapes will be available again at the meeting. We will have all three tapes - the Sydney, Brisbane and NE NSW tapes. Each costs \$15, which is less than retail! Did you see the rave review in the Nature Australia Magazine, the Museum's "ANH"? K.T.

CURRENT RESEARCH PROJECTS

This section will be continued next newsletter, for those people out there who I wasn't able to contact and may want to tell us about their projects!

Arthur White and Graham Pyke

Biology, conservation and management of the Green and Golden Bell Frog.

Field studies in NSW, Vic and NZ are collecting information on population size, range and dispersal and age structure. Radio-tracking is being used.

Investigation in the laboratory of the factors influencing growth, metamorphosis and competition between tadpoles.

Arthur White

Biology of *Crinia timmula* at Kurnell. - tagging animals at each pond site - pit-trapping, recapturing animals for population estimations and dispersal - gut contents - breeding (in contrast to *Crinia timmula* in Northern NSW).

A. White and G. Pyke

Predation by *Gambusia* on *L. aurea* tadpoles - Study of effect of tadpole size, tadpole density, fish size and fish density - tadpole discrimination by *Gambusia* (between *L. aurea*, *Lit. peronii* and *Lim. peronii*).

Frank Lemckert (State Forests)

A joint study with the University of Newcastle (Michael Mahony) has been partially completed on the Green-Thighed Frog (*Litoria brevipalmata*) on the central coast. This project involves a range of work including some radio-tracking, collection and raising of tadpoles for establishing husbandry techniques, genetic studies and habitat assessment of known sites (the last is continuing). Results of this work will be written up later in the year. Further surveys have been conducted for

the Stuttering Frog (*Mixophyes balbus*) on the far south coast with limited success. No frogs have been positively identified from the Eden area (there are a couple of possible records), but a steady if slow flow of records continues from Narooma. The results of these continued surveys are suggesting that the frog really is quite rare on the far south coast. I've also got a Giant Burrowing Frog that I hope to radio-track in the Eden area.

Karen Thumm

I'm still working on Red-Crowned Toadlets. The past year I've been concentrating on embryonic development and larval behaviour in order to understand the recruitment rate and recovery potential of the species. In other words, how do Red-Crowned Toadlets breed in order to compensate for all the egg masses and tadpoles which dry up due to Sydney's unpredictable rainfall. I'm intending to be back into distribution, habitat analysis and species management in the near future. (Newcastle Uni student under Michael Mahony)

Barbara Harvey is continuing to monitor sites of Red-Crowned Toadlets at Bradley's Head on an on-going basis.

Thanks to Lance Tarvey for this run-down of frog projects happening in NE NSW:

Ben Lewis is an Honours student at southern Cross Uni and has an on-going project looking at distribution and abundance of *Litoria olongburensis* in NE NSW. Ben has established a number of sample transects from Bunjalung N.P. (south of Evans Head) up to Tyagarah Nature Reserve (south of Brunswick Heads. Ben's supervisor (Ross Goldingay) intends using these sites for long term monitoring. This will be written up after some additional work. AND In his major honour's project, Ben is studying the distribution and abundance of the Green and Golden Bell Frog (*Litoria aurea*) in the Illawarra (i.e. not really in NE NSW), and in particular how this species interacts with the introduced Mosquito Fish (*Gambusia holbrooki*).

Ben and Davis Roheder (also from SCU) have also been surveying some 20 sites in the Bungawalbin area along Myrtle Creek for *Mixophyes iteratus*, identifying this species from 12 of the sites. This survey will be expanded to sample a wider geographic area.

Jeremy Morante Southern Cross University (Supervisor Ross Goldingay) is studying the distribution, and abundance of the Cascade Tree Frog (I like that common name) *Litoria pearsoniana* in NE NSW. AND a "minor project" on the role of farm dams in promoting and maintaining amphibian biodiversity.

Ross Goldingay has his own project monitoring rainforest stream frogs across some 30 sites in NE NSW. Ross is looking at annual monitoring of species and abundance. An interesting project in the light of declining rainforest stream frogs in Queensland.

If there is any information on orange spots (fungal infection?) on big *Mixophyes* tadpoles, please get in touch with Lance at NPWS Alstonville.

TOP END FROGGING IN THE WET SEASON JANUARY 1997

by Barbara Harvey

WA cyclone had passed by a week or so before and the weather when I was there was "frog perfect"! Everything green and wet, a good thunderstorm every afternoon and no rain at night.

First site was at **Fogg Dam**, which is situated some 52 kms ESE of Darwin along the Arnhem Hwy. First I took the boardwalk through the swamp. Many *Litoria bicolor*, *L. convexiusculus*, *Crinia bilingua* and *L. rothi* calling but only saw *L. convexiusculus*, which likes to call from under spiky fallen Pandanus leaves! And given their extremely slippery skin secretions, they are almost capture proof! This secretion is also extremely toxic to other frogs and will kill any other species placed in the same bag. Better frogging was to be had on the way home along the road where well-filled table drains had frogs hopping from one side to the other. Species seen: *Cyclorana australis* (both putty and bright green colour morph), *L. rothii*, *L. bicolor*, *L. rubella*, *Limnodynastes ornatus*, *Rana dameli*, *L. dahlii*, *Uperoleia inundata*. Had to give up stopping the car - too many frogs.

Second site was at a creek and associated floodplain near Darwin Airport, along Amy Johnson Drive. Clear water was flowing to a depth of about 20 cm over the floodplain and I saw *Uperoleia inundata*, *U. lithomoda*, *Crinia bilingua*, *Litoria caerulea*, *L. rothii*, *L. tornieri*, *Lim convexiusculus*, *Lim ornatus*. A Gilbert's Dragon *Lophognathus gilberti* asleep on a tree and a fearsome-looking *Toebiter* in the water were added attractions.

The next night's frogging was at **Katherine Gorge** - a community Frogwatch project organised by **Ian Morris** (author of the recently published Steve Parish Natural History Guide to Kakadu). The roll-up of froggers, young and old was amazing. At least 100 people attended. After the frog collection everyone gathered at the Interpretive Centre where Ian identified the frogs and brought each up on his computer screen. I was able to add *Cyclorana longipes*, *Litoria pallida*, *L. inermis*, *L. wetjulumensis* and *L. nasuta* to my trip list. However, our main quarry, *Notaden melanoscaphus* proved elusive - none calling and only one metamorph collected, indicating they had bred after the rains from the cyclone had finished.

The next two night's venue was near Ian's place, in the Elisabeth Valley, south of Noonamah, where many *N. melanoscaphus* were calling - but always at least 300 m from us! Three were found the first night and none the next night, despite 6 of us looking. there was about 8 cm of clear water flowing over the lateritic substrate of the floodplain and, being very lightly grassed, visibility was excellent. Where DO they hide??

A most successful frogging trip, a total list of 19 spp. of which 9 were new to me, while daytime sorties netted 71 spp. of birds, 9 spp. of other herpetofauna, 3 spp. mammal and 13 spp. of fish

and other marine critters including several **Box Jellyfish** and a magnificent **Blue-Spotted Fantail Stingray!**

Barbara Harvey

VANISHING NAUGHTY BITS

ater Fax Weekly is an info dissemination service the Hawkesbury-Nepean Catchment Management Trust subscribes to. Bill Dixon faxed this worrisome titbit from WFW on to us. It comes originally from the West Australian of 21. 10. 96:

"New phenomenon: frogs with tails,
no legs & small sex organs

Bruce Nelson was catching frogs for catfish bait last year when he realised something was horribly wrong - some of the frogs had stumps for legs, others as many as four tangled hind legs. Across the US midwestern state of Minnesota, into neighbouring Wisconsin, South Dakota, and even as far away as Quebec and Vermont, scientists are seeing the same kind of misshapen limbs, along with frogs with tails, missing or shrunken eyes, and smaller sex organs.

Scientists have had a hard time finding wetlands in Minnesota with no deformed frogs. They believe the cause for the deformities may include pesticides, parasites or radiation from ozone depletion."

Please, if you find deformed frogs, do fill in a FATS survey form (available from the secretary) and send it to our P.O. Box or bring the form in. Because, for actuarial reasons, deformed adults are rarer than deformed metamorphs or juveniles, also put in a size estimate. And if you can't find their smaller sex organs, do not panic. Unless you're a frog scientist who knows them inside out. L.V.

Drawings by Donna Wahl from "Frogs of the Gardens"

<http://www.anbg.gov.au/projects/frogs/anbg-frogs.html>



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