

FROG CALL



NEWSLETTER No. 70
March 2004

THE FROG AND TADPOLE STUDY GROUP OF NSW INC
PO Box 296 Rockdale NSW 2216
Email fatsgroupnsw@hotmail.com
Website www.fats.org.au
ABN 34 282 154 794

You are invited to our next meeting

6.30 pm for a 7.30 pm start

Friday 2nd April 2004

Australian Museum, William St entrance

FATS FRIDGE MAGNETS

You will be able to take some to your greengrocer, supermarket and plant nursery. You can sign up to become a local rescuer! Arthur will tell you all about it at the meeting.



**FOR LOST, SICK
or
INJURED FROGS**

Frogwatch Helpline
0419 249 728
www.fats.org.au



Designed by Alistair MacDougall

MEETING FORMAT for 2nd April 2004

- 6.30 pm A small number of frogs are ready to collect from the Frog Rescue Service. Please bring your FATS membership card and Amphibian Licence.
- 7.30 pm Welcome and announcements
- 8.00 pm Main Speaker: Arthur White: The historic and current distribution of the Barred frogs *Mixophyes iteratus* and *M. balbus* in the area from the Hunter River south to Kanangra.
Marion Anstis: "Frogging in the Northern Territory" or "How cute are *Cyclorana* tadpoles?"
Grant Webster: Report on Watagan Frogging Trip
Alistair MacDougall Video:
Barren Grounds field trip and more.
Dana Ip: "The legless wonders of St. Ives"
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.
- 9.30 pm 5 Favourite Slides
- 9.45 pm Auction and drawing of door prize
- 10.00 pm Tea and Coffee

CONTENTS

February guest speakers	
Lothar Voigt	
Cheap housing for frogs	p2
Alistair MacDougall videos	
Tadpoles and Smiths Lake	p2
FATS Anthem, Martyn Robinson	p2
Field Trip accounts	
Darkes Forest, October 2003	
Morgan Crowcroft Brown	p2
Calendar of Events	p2
Cane Toad flyer	p3 & 4
Mystery frog	p5
Claude in a box	p5
HerpDigest	p6 & 7
Frequently asked questions	P8
New Membership application	
to photocopy and distribute to	
potential new members	p9 & 10
Newspaper articles	p11
Field trips & Committee contacts	p12

Arthur White opened the February meeting. He provided updated information on the impact of Cane Toads in NSW. Articles in the press are not intended to scare people however should the cane toads get across the Great Divide, experts are keen to obtain information as soon as possible. Sightings should be reported immediately.

Any materials such as landscape supplies, Bessa Bricks, compost, nursery equipment, ground produce and plants coming from Queensland may be a potential source for cane toad relocations. If you are travelling to Western NSW, please take a few copies of the cane toad and FATS membership flyers with you to distribute to any plant nurseries, building and hardware shops etc. See pages 3, 4, 9 & 10.

Many thanks to Alistair MacDougall for another superb video. We all enjoyed the "blue ribbon tadpoling" with the master herself - Marion Anstis. FATS members were treated to some secrets of tadpole identification such as scenes of treefrogs with their tails wiggling indicating that they are tree frogs.

The Smith's Lake field trip video followed and provided us with a wonderful record of a great weekend away for froggers.

As we watched, Lothar conjured up an amazingly sophisticated frog enclosure from two broccoli boxes, bond-cryl, a sheet of glass, wooden skewers, Vaseline, iron oxide, a pump, activated carbon, pondtite, feeding jars, and a spotlight.

Grant Webster presented his report of the Riverstone trip. Grant, we apologies for the equipment failure and look forward to your next field trip as leader of the group and, hopefully, more reliable equipment for the presentation.

Brad and Matt brought superb slides.

Arthur talked about relic frog groups in the mountains. Some have yet to be named, as there has been no way to define them. At least six different and enigmatic *Ciranus* species crawl around inhospitable, horrible, cold and wet rocky crags covered by wispy bits of sphagnum moss and at high elevations or rainforests. They eat the springtails in the moss and bury their unpigmented eggs under rocks.

The meeting ended with our customary auction of frog memorabilia. (M) (W)

CALENDAR OF EVENTS

Sun. 4.4. 10-3 pm Frogpond Workshop, bookings
Centennial Park 9339 6699 L.V.

Weekly Fr. 3 pm Frogtime Radio 2RRR L.V.



After the media onslaught at the launch of the Frogmobile a few froggers sat around discussing life, the universe etc. A suggestion was made that FATS needed an anthem to inspire the troops. With an inch-and-a-half pencil and an empty sandwich bag Marty Robinson proceeded to produce the following:

(To be sung to the tune of Men of Harlach.)

Frogs are good and frogs are gracious,
Frogs have happy smiling faces,
Frogs are found in pleasant places,
Lets all cheer for Frogs!
(hurrah)

Frogs are now in lots of trouble,
Ponds are quiet of croak and pobble,
FATS to the rescue, on the double,
Lets all cheer for Frogs (or FATS)
(hurrah)

FATS and Frogs are clearly winners,
Non-supporters must be sinners
And we'll eat flies for our dinners,
Lets all cheer for Frogs.
(hurrah) Martyn Robinson

DARKES FOREST EXCURSION

I was hopeful at finding a few of the species we came upon here in October last year.

The *crinea signifera* could be heard in the first pond but it was a *Litoria phyllochroa* that started the night off. The boys in our group spotted a yabby and with the torch light on it, the colours came up florescent blue and orange. Following that they caught sight of a young water dragon.

We walked down a track and passed a ring tail possum high in a tree.

At the next pond we had better luck as we came across several frogs, *Litoria citropa*, *Litoria lesueuri*, and a *Litoria peronii*. Because the water level was low spotting tadpoles was easy (*Litoria peronii*).

It seemed to be a night for yabbies although for the unusual a praymantis egg case was also noted.

Moving along on a newly laid raised metal track a *Litoria freycineti* was seen clinging to a tree.

Back at the entrance and a distance away from the stream, a lone *Litoria peronii* wished us goodbye.

I had a great time and look forward to next going again. Thank you to Ken Griffiths for an informative evening. Morgan Crowcroft Brown - 10 years old



Why control cane toads?

In Australia cane toads have no natural enemies. Their toxin can kill most native animals that normally eat frogs. They therefore pose a risk to both native fauna and pets such as cats and dogs. Cane toads can use a wide variety of habitats and thrive in urban and disturbed areas. They have a voracious appetite and can eat a lot of different foods. They also breed quickly, allowing them to rapidly colonise and dominate an area. These abilities give cane toads a competitive advantage over native species.

Is it a cane toad?

Cane toads can sometimes be confused with native frogs. The distinctive features of the cane toad are shown opposite. Young cane toads look similar to some native frogs. For specimens over 4 cm long, the information provided should allow accurate identification. Smaller specimens require identification by a frog expert.

Care in handling cane toads and native frogs

Toxin is produced in the shoulder glands of cane toads and is present in the skin of the back. If squeezed tightly the toxin may be sprayed from the glands. When handling cane toads it is best to use rubber gloves and a firm but gentle grip. Avoid skin contact with this toxin and if it gets in your eyes, nose or mouth, seek medical attention.

Native frogs are susceptible to diseases and chemical residues that may be on your hands. If handling native frogs, hands or gloves should be clean and wet.

How you can help

If you suspect you have found a cane toad:

- Using the information provided, make sure it is not a native species. If in doubt, contact the nearest NPWS office.
- Humanely and safely dispose of any identified cane toads.
- If you find a cane toad outside the range indicated on the map, contact your local NPWS office.



Cane toads in NSW



Cane Toads are a threat to native animals. Our wildlife needs your help to stop the spread of cane toads in NSW by actively controlling existing populations and preventing them establishing in new areas

This brochure tells you where the crucial areas for cane toad control in NSW are, and how to identify cane toads from native frogs.



N S W
NATIONAL
PARKS AND
WILDLIFE
SERVICE

General inquiries: 43 Bridge Street Hurstville NSW 2220
Phone: 1300 36 1967 or 02 9585 6333
Fax: 02 9585 6555 Web site: www.npws.nsw.gov.au

N S W
NATIONAL
PARKS AND
WILDLIFE
SERVICE

Introduction and spread of the cane toad

Cane toads were introduced to Queensland from South America in 1935, in an unsuccessful attempt to control cane beetles, a pest of the sugar cane industry. Having no natural enemies, the toads spread west into the Northern Territory and south into New South Wales.

The range of the cane toad in NSW now extends along the coast from the Queensland border to the Iluka/Yamba area. An isolated breeding population has established further south at Lake Innes near Port Macquarie. Sporadic records are known from other areas including Sydney. These are usually due to accidental transportation of individual toads rather than local breeding populations. However, all cane toads should be reported to the NPWS and their source investigated.

The coastal area from Yamba to Port Macquarie is considered most vulnerable to being colonised by the cane toad. Particular effort in controlling outbreaks of cane toads in this area is needed to stop their southward spread and protect native wildlife.

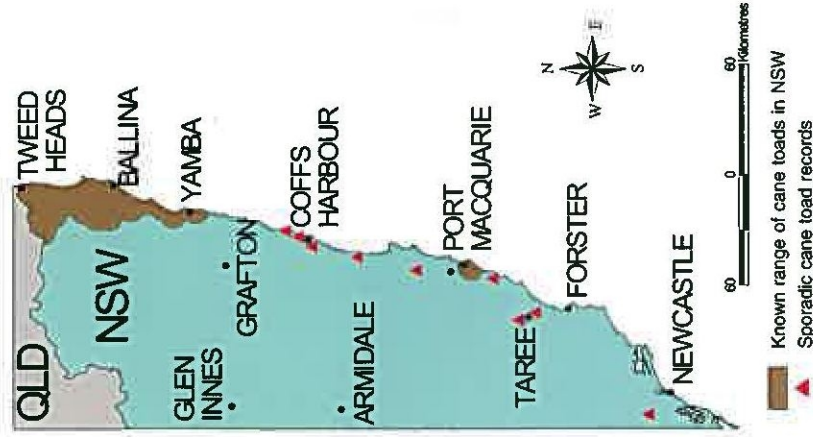
Avoid transporting cane toads

Cane toads can be moved around accidentally. Be careful when travelling from cane toad infested areas or moving produce from those areas. You may have a cane toad stow-away.

Native frogs

Native frogs control insects that may otherwise become pests and are in turn food for many native animals. Populations of many native frogs have declined severely in recent times and some species are threatened with extinction. Spread of the cane toad may increase these threats.

Cane toads in northern NSW



Some native frogs that may be mistaken for cane toads are shown at right with their adult size and geographic range in NSW. Compare these native frogs with the cane toad shown overleaf. Do not kill the animal unless you are sure it is a cane toad.



CLAUDE IN A BOX

Is that really you, Claude? Where on earth have you been?

Ici, Madame, right in 'ere, inside zis frog cabinet.

What? For how long, Claude?

Since I built it. I glued myself in by mistake.

That wardrobe? It looks like a pile of styro boxes glued together!

Oui, Madame, someone wanted me to make a frock cabinet. My other mistake.

But styro? It looks terrible.

Alors, I should 'ave 'ad my pond paint with me when I was glued in. I would 'ave painted it to look like tree trunks and sandstone. But styro is très bien – broccoli boxes, zey come free from your greengrocer. You can cut them about and make 'oles in them for pipes and cables. You can glue shelves in and little raised ponds and a front glass and fly screen and a feeding station and filter compartment and, oh, everything!

Including yourself, Claude.

It is meant for frogs, after all. Look, you can make quite big cages if you glue several boxes together. Use silicone and dovetailed wooden skewers, and then the pond paint or pool paint or terracotta paint (such as Pondtite or Terratite). Take the inner walls out or make openings in them for the frogs. See those two boxes? They make a double cage for tree frogs, standing upright, or for ground frogs if you glue them together alongside each other or one behind the other one. Then cut a large rectangle out of the front and glue the glass behind. Later, against condensation forming, you can loosely attach another glass in front. And voila!

That's it?

You still have to put a flyscreened opening at the top and maybe put a small light over it. And put in a door so you can reach in, but use a design where water can't leak out.

I remember the floods my dear husband used to make. I had to strangle him, of course.

Naturellement, Madame. There are such designs in *FrogFacts* No. 11, an excellent periodical. Or, to make a tall cage out of lying-down boxes, just stack and glue them together on top of each other but with the bottom of the upper box or boxes cut off. The flyscreened lid is at the top, no water can get out, especially when you glue strips of styro over the seams and give everything a few coats of that thick paint.

Yeah. Still looks like a box though, doesn't it?

You can make the inside look irregular and like stone. Use polyurethane foam from a spray can, then sculpture it back before you paint. When the paint is still wet, throw sand against it, even sand with some iron oxide in it for

colour. When that has dried, paint over the sand with a clear water-based and water-fast glue (Bondcryl will do) and throw some more sand over it.

But I could never make fake sandstone! I'm just too honest, Claude.

It need not be a masterpiece, because you can rub a handful of Java Moss over your work. Grind it right in. It will sprout again and cover the entire surface, above and below water, with a thick layer of lovely moss.

Amazing. Tell me, is such a cage hard to keep clean?

No. This one only has a drain hole cut into the bottom corner, with the neck of a plastic bottle cut off and glued into the hole. Before you unscrew the lid, tilt the water away from it, aim the bottle over a bucket and tilt the cage back. Pour more water in from the top. C'est ça!

Claude, I am wrapping this thing round your neck! I built one, and look how it leaks!

Madame, your fingerprints on it! You have left them everywhere!

So? Will I get arrested? I haven't done anything to you yet! Only my husband.

Quel malheur! The silicone won't stick on fingerprints. You should have rubbed the glass and other surfaces with methylated spirits first. Now you must dry the cage, paint the inside with clear Estapol and wait until the smelling stops. Here, let me sell you a tin.

Gee, thanks, Claude. – Wait a moment, this started off as a low cost project, and look what I just paid L.V.

MYSTERY FROG

Can you identify the mystery frog? The five clues below, plus your field guide, or a quick look on the www., make this a very easy one. Write your answer on an entry form at the FATS meeting. \$1 per entry.

First correct entry drawn wins a prize.

1. Although I live in a semi-arid region of Australia, you won't find me in the drier parts of New South Wales.
2. I spend most of my time underground.
3. I'm a head-first burrower.
4. My eggs (up to 7.4mm in diameter) are the largest of any Australian species.
5. I have no tadpole stage. My embryos go through their entire development in their egg capsules.
6. You might call me a beady-eyed weirdo, but I am wonderfully mysterious and unique.



HERPDIGEST

THE HOUSTON TOAD

Texas family praised for protection of rare toad. Bastrop County, Texas, March 11, 2004 (ENS) - The U.S. Fish and Wildlife Service and the nonprofit conservation group Environmental Defense jointly recognized a Texas family on Wednesday for their dedication to conserving a rare amphibian species that resides in central Texas.

The federal agency and the nonprofit group praised the efforts of Robert K. Long, Sr. and his family for their partnership to create, enhance and restore habitat on their 540 acre ranch to benefit the endangered Houston toad.

A ceremony recognizing the partnership was held Wednesday at the Long family's property, the L & L Ranch, in Bastrop County, Texas.

Environmental Defense has worked with the Long Family and the Fish and Wildlife Service over the past year to develop a Safe Harbor Agreement that outlines specific management actions designed to provide a net conservation benefit to the Houston toad.

This kind of agreement is a voluntary arrangement between the federal government and non-federal landowners that are designed to benefit endangered species while providing landowners assurances that they will not incur additional restrictions on their property due to their beneficial actions.

Conservation measures outlined in the agreement include activities to facilitate the Houston toad's reproductive success, improve the quality of foraging and other habitat areas, and enhance movement between foraging and breeding areas for the toad on the ranch.

The Houston toad was listed as endangered on October 13, 1970. The species is characterized as a small to medium sized toad that varies in color from light brown to reddish to gray. It was historically known to occur in 12 Texas counties, but is now believed to only reside in nine counties.

The most robust of the remaining Houston toad populations occurs in Bastrop County in association with the "Lost Pines" ecosystem, characterized by pine and oak woodlands and deep sandy soils.

"Partnerships such as this, where agencies and private land owners work together with common goals present true opportunities for species recovery," said U.S. Fish and Wildlife Service Southwest Regional Director H. Dale Hall.

Several agencies such as Texas Parks and Wildlife Department, Texas Department of Agriculture, and the Natural Resources Conservation Services are also

expected to participate in the implementation of the Safe Harbor program on the L & L Ranch.

SPRAY TOADS MAKE LAST STAND

Kihansi spray toad A tiny toad nearing extinction in the wild is making its last stand at the Toledo Zoo. In a closet-sized room in the reptile house, keeper Tim Herman tends a makeshift cloud forest. His charges chirp happily as a steady mist spritzes their verdant homes.

These 24 Kihansi spray toads are the survivors, nearly the last of their kind. In January, a trip to their natal territory along the Kihansi River in Tanzania revealed the truth. From the tens of thousands first discovered in 1996, researchers found five.....

It began in 2000, when zoos in Detroit and New York received a total of 538 toads from Tanzania. They hoped to establish a breeding population that could one day return toads to the wild.

Tanzania is a hard-pressed country. Its people are poor. The Kihansi River, with its 260-foot-high waterfalls and its torrent of water, was a natural resource. Damming it would provide electricity and, perhaps, prosperity.

In 2000, with a sizeable World Bank loan, the river was dammed and its flow diverted. Now a trickle of water drips into the gorge that was home to thousands of spray toads.

The animals had lived in a tiny paradise, their entire equatorial existence a gift of the mist rising from the cataract. Perfectly adapted for this small niche, the toads were devastated when it was cut off. They crowded along the edge of the river, surviving on the thinnest slice of their territory.

To save this remnant, narrow pipes sprayed the toad habitat with water. It worked for awhile. Toad numbers rose from a low of 2,000 to as many as 17,000 in 2003. Then disaster struck. A fungus that has slaughtered frogs around the globe invaded the Kihansi.

Meanwhile, the captive toads were dying too. They came from the wild with lungworms. Half the founding population died before veterinarians gained control. Despite this, the animals bred vigorously. Nearly 700 were born at the Bronx Zoo.....

Finally, the Toledo Zoo, along with zoos in Oklahoma City, Baltimore, and Buffalo each received spray toads.

Toledo received 30 toads. All but seven died. Other zoos fared no better. In 2003, the same zoos received a second shipment. Toledo got 20.

Some of the zoos saw even those toads die. Oklahoma City lost all its spray toads. Detroit, which started with 250, lost all but five. Those five toads are now at the Toledo Zoo.

Toledo, though, has seen some success. First, there was dumb luck, Mr. Herman said. In looking for plants to carpet toad homes, he stumbled on the exact species of club moss the animals live with in Africa.

Then, there was success born of Mr. Herman's determination, said R. Andrew Odum, Toledo Zoo's reptile curator.

Looking at the skinny, fragile toads, Mr. Herman surmised the animals weren't getting the right light. Without proper ultraviolet light, the animals cannot metabolize calcium. In an extensive search, he sussed out the right bulb.

"This is our last-ditch effort. This is our Alamo. It's a little too late, basically, or maybe a lot too late."

Extract Toledo Blade, Ohio, 3/4/04

BOOMING ECOTOURISM IS STRESSING ANIMALS TO DEATH: -

New Scientist reports, worried biologists have warned that wild animals are manifesting signs of extreme stress when they come into contact with humans.

"Polar bears and penguins, dolphins and dingoes, even birds in the rainforest are becoming stressed. They are losing weight, with some dying as a result," the British journal says.

Heart rates increase, reproduction decreases and hormones go awry with contact, made ever more frequent by the growing numbers of holiday adventurers flocking to remote, biodiverse areas. Bottlenosed dolphins along New Zealand's coast became frenetic around tourist boats, resting for as little as 0.5 percent of the time when three or more boats are close, compared with 68 percent of the time in the presence of a single research boat, researchers who have studied them since 1996 found. Polar bears who should be resting during chilly October and November months in Manitoba, Canada, ahead of their seal-hunting season, have also been made anxious by humans.

University of Manitoba, Winnipeg, researchers Markus Dyck and Richard Baydack said signs of vigilance among male bears increased nearly sevenfold when tourists were around, adding that it could use up their energy, thereby reducing essential body fat, with potential long-term consequences on breeding. One vehicle is all it takes to set the bears on edge, they said.

Among the baby yellow-eyed penguins of New Zealand's Otago peninsula, researchers frequently found more than a 10-percent drop in weight for chicks in areas frequented by tourists.

Philip Seddon of the country's University of Otago said this could be the result of parents taking longer to reach chicks after foraging for food.

"Penguins will run back into the sea if approached on the beach, and will wait beyond the breakers until a beach is clear," he told New Scientist.

Underweight baby penguins were less likely to survive, he said, adding that tourists coming to see the flightless birds could bring about the end of their colony.

From polar caps to steamy jungles, ecotourism has had a major impact on local economies and wildlife populations.

The industry promotes an up-close view of nature and a host of outdoor activities, while encouraging sustainable and environmentally-sensitive development.

It has grown at what New Scientist reported is an annual 10- to 30-percent rate to become a billion-dollar industry which in 1998 attracted nearly nine million people in 87 nations and territories.

Even the United Nations has gotten behind the business, as when it dubbed 2002 the year of ecotourism.

But apart from a few notable exceptions, ecotourist projects are unaudited, unaccredited and promise environmental responsibility without actually having to prove it.

Mostly they follow more basic guidelines concerning land use, cutting down trees and kindly trying not to scare the animals, the British journal says.

Even carefully controlled ecotourism often makes itself felt. Ecotourism is an excellent resource for biodiverse developing nations, but biologists are calling for precise pre-studies such as these before setting up business, the journal says.

"Pre-tourism data should always be collected, where possible," Rochelle Constantine, who studied New Zealand's dolphins, says.

"The animals' welfare should be paramount because without them there will be no ecotourism." **Extract Science Report 3/6/04, LONDON (AFP)**

HerpDigest Publisher/Editor Allen Salzberg Sunday, March, 14, 2004 Volume # 4 Issue # 29 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. If you have any suggestions, articles or announcements you wish to see posted in HerpDigest please contact the editor at asalzberg@herpdigest.org.

I went through a pile of Helpline notes, and I fished out the more common queries I got. Here is a selection of those that have nothing to do with garden ponds. (The answers, of course, you know anyway. Some of them will be discussed every Friday at 3 pm on Community Radio 2RRR 88.5 FM, where FATS has a regular spot.)

Frog ID questions

1. How can you tell frog species apart?
2. Can you identify a frog for me over the telephone?
3. Can one identify them as spawn or tadpoles or does one have to raise them up first?
4. How can you tell frogs from toads?
5. How can you tell frog males from females?
6. What do the most common frogs in Sydney look and sound like?
7. The frogs in my garden go "pock", so the tadpoles in my pond must be Striped Marsh Frog ones?
8. There's this funny noise, but it doesn't sound like a croak. Could it still be a frog?
9. I found these clear rubbery eggs under a rock by the pond. Is that from frogs?
10. I got this white floating stuff from a ditch, but nothing hatched out of it. Was it frog spawn?

Frog rescue questions

1. We brought some taddies back from a puddle in the National Park. It was drying up. What shall we do with them?
2. I found a frog in my garden. I'm sure it's a rare frog. Could you come and take it away?
3. I found a frog and I have a cat. Can someone come and take it away?
4. My neighbours are complaining about the noise from the frogs in my garden. I want them removed.
5. I have a swimming pool full of tadpoles but I must now chlorinate it. Could you take them away?
6. I keep finding dead frogs in my swimming pool. What's wrong?
7. I keep finding dead baby frogs in and around my pond. What can I do?
8. I found frog spawn in my dog's water bowl. Can I put it in a nearby creek?
9. Frogs keep laying eggs in my kids' wading pool. It's not hygienic and I keep tipping them out. Can you catch the frogs and take them away?
10. I have a grocery shop and when I find frogs I put them in my garden. That's ok, isn't it?
11. What does the Frog Rescue Service do with them? Will they be in good hands? Can they go back to the wild?



How frogs work: strange facts and amazing misconceptions

1. Frogs have hands and feet like us. How are they related to us?
2. Does a tadpole change into a frog just like a caterpillar changes into a butterfly?
3. Do all frogs have tadpoles?
4. What about desert frogs? Do they have tadpoles?
5. How does a tadpole change into a frog?
6. How can such a small tadpole change into such a large frog?
7. Is it true that a tadpole eats its tail?
8. How do tadpoles eat / breathe / swim?
9. Do any frogs look after their eggs or tadpoles?
10. Do they bite? Can they hurt you?
11. Why do they mate like that?
12. What's the weirdest frog?

Frog keeping questions

1. How can I get a frog? (Very common question)
2. Is it right to keep frogs in captivity? (Hardly ever asked)
3. Why can't I take a frog from the wild? There are so many.
4. My greengrocer found a frog in the shop and gave it to me. Can I put it together with my other frogs?
5. Frogs are cute. Do they make good pets?
6. How come keeping frogs is good for children's education?
7. I just bought a frog cage. What does the frog need inside?
8. Do frogs need much looking after? Do they eat bread?
9. Where do I get frog food from?
10. I want to breed rare frogs, so I can release the babies. How do I start?
11. How can I make some money breeding frogs?
12. I want a frog cage in my bedroom. Do they make much noise?
13. I have several frog cages. I keep my frogs clean and well fed. But they got sick in one cage and now also in the others. What's happening?
14. We don't want our frog any more. Where can we let it go? We don't have a garden(!)

Tadpole keeping questions

1. We brought some taddies back from the holidays. What do we do next?
2. We brought some taddies in from the garden pond. What next?
3. I am a teacher, and many of the kids brought taddies in from their garden ponds. They are all in this tank now. Isn't that nice?
4. I am a teacher and we are raising 20 tadpoles. They look a bit sick now. What are we doing wrong?
5. My tadpoles are not eating, regardless how much food I put in. What's wrong with them?
6. They were fine as tadpoles, but now they turning into frogs and are all drowning. Why? L.V.

We are always in need of people to help out or offer expertise. If you can help with any of the following areas, or have other skills you would like to offer, please tick the appropriate boxes.

- Folding and labeling the newsletter
- Writing articles for the newsletter (*FrogCall*)
- Being part of the Frog Rescue Team
- Publicity and mailings (other than *FrogCall*)
- Talks to schools and other children's activities
- Representing **FATS** at public displays
- Something else?

.....

If you are a student or professionally employed in a scientific or related area concerning frogs or tadpoles, please attach a short note to tell us about your specialties, species studied, projects in progress, etc.

.....

.....

Please accept my application for membership in the Frog and Tadpole Study Group of NSW, Inc.

Signature

Date

By becoming a member of the Frog and Tadpole Study Group, you make a contribution towards scientific knowledge and conservation of frogs. Thanks for participating!

Membership form valid from August 2016

How do I get more information?

Visit our website at www.fats.org.au or come along to a **meeting** and speak to one of our Committee members.

Send us an email to enquiries@fats.org.au

Phone **0419 249 728**

Write to: - **FATS Group
Post Office Box 296
ROCKDALE NSW 2216**



Complete this section for your own records

Cheque/Order no:

Date mailed:

Membership type:

Date of direct deposit.....

Your receipt and Membership Card will be mailed to you.

Are you interested in **FROGS**



and

TADPOLES?



Then join the
**Frog and Tadpole Study
Group of NSW**



What is the Frog and Tadpole Study (FATS) Group of NSW?

We are a society established in 1991 and based in New South Wales, Australia, for people who have an interest in frogs and tadpoles. **FATS** Group members include naturalists, keepers, professional scientists and private people, all with a desire to learn more about frogs. We aim to increase awareness and appreciation of frogs and aid in their conservation.

What does the FATS Group offer?

Informative: Guest speakers at our meetings, and our bimonthly newsletter *FrogCall*, provide the latest in news, project updates, hints and entertainment, as well as a summary of the previous meeting. We also maintain a website and produce the *FrogFacts* information sheets.

Topical: Current interests include monitoring of the Green and Golden Bell frogs, captive frog health and breeding techniques. Many **FATS** Group members have ongoing field studies of frog populations, particularly of those species known or suspected to be in decline.

Practical: **FATS** has workshop sessions with demonstrations of techniques and occasional live specimens. Our *FrogFacts* sheets provide information on many issues concerning frogs, such as creating frog-friendly habitats. Member only field trips catering to all levels of experience are conducted on a regular basis, predominantly within the Sydney region.

Who can become a member?

All persons with an interest in frogs and tadpoles and conservation issues relating to them are welcome to become involved. Corresponding members are most welcome.



When and where does FATS meet?

Meetings are held on the 1st Friday of each even month (February, April, June, August, October, December) at the **EDUCATION CENTRE** in **BICENTENNIAL PARK**, enter via Australia Avenue (see map above). Arrive at 6:45 pm for a 7:00 pm start. Everyone is welcome.

See FATS website for details: www.fats.org.au

What are the Membership costs?

Membership rates and types are listed on the Application for membership. Membership is annual from June to the following May, and new members joining from February receive the April *FrogCall* free and start their membership in June.

How do I join?

Complete the attached Application for Membership, tear it off and mail it with your cheque, money order or bank draft (payable to **FATS**) to the address on the back of this form, or attend one of our meetings in person. The Frog and Tadpole Study Group of NSW, Inc.

Application for Membership

.....
Title First name Family name
.....
Street number and name
.....
Suburb State Postcode
.....
Home phone Work/mobile phone
.....
Email

This is a new membership renewal

Membership type: (Please tick appropriate boxes)

FrogCall
 Single \$30 Family \$40

Additional donation \$.....

Total enclosed \$.....

Direct Deposit Details:

BSB: 082 342
Account Name: Frog and Tadpole Study Group
Account no: 28576 6885
Reference: Your name

Dear All,

I am making a documentary on the Green and Golden Bell Frog. Part of the story will look at a time when it was common in NSW. I'm looking for 'old' photographs of people with frogs pre 1960s. Ideally with Green and Golden Bell Frogs.

Hope you can help. Thanks, Lou Petho stoneycreek@yahoo.com.au

Neobatrachus sudelli



gmobile at Manly Photo- David Nelson



Toads II: the city strikes back

Darwin is calling its citizens to arms against an invasion, writes Anthony Dennis.

IT'S mid evening in mid summer in Kakadu National Park. The road to Nourlangie Rock, a distinctive geological feature in the World Heritage area, would be deserted if not for the unwanted visitors populating it at neatly spaced intervals along every broken white line.

Cane toads, introduced to Australia from South America to control sugar cane pests in the 1930s, are now a regular nocturnal feature in Kakadu, the newest form of road-kill and a constant threat to Kakadu's eco-system.

The Kakadu invasion is a harbinger for a further assault to come. While some people assert Kakadu's management has surrendered to the insatiable force of *Bufo marinus*, Darwin, a victim of Japanese World War II air raids and Cyclone Tracy nearly 30 years ago, is now regarding itself to repulse its latest foe.

Darwin is poised for the damaging South American import, which are poisonous to most native wildlife predators, to march on the city as they have already done in other parts of the Top End and Queensland.

Cane toad information websites have been set up and local radio stations air regular community announcements on how the city can prepare itself for the imminent invasion, and the squishing noise that today echoes across the household driveways of much of Australia's northern half.

Frogwatch NT, an independent Darwin-based group that has been monitoring the Northern Territory cane toad assault for many years, is fighting back, though victory is not assured.

Eradicating the cane toad will not



Invasor ... a cane toad in Kakadu National Park. Photo: Paul Benjafield

be possible unless some form of biological control is found, something which the CSIRO is working on. However the creature's spread can be minimised by removing eggs from breeding areas and removing mature toads, to be disposed of humanely by freezing them and then "euthanasing" them with a sharp blow to the skull.

The group has found unexpected, and unlikely, inspiration from the territory's new \$1.3 billion railway. During the dry-season construction of the monumental Adelaide to Darwin link, workers bulk ponds for the water required for compacting soil. Those ponds were illuminated by bright floodlights so work could proceed at night.

Enticed by the light and ensuing insects, and desperate for water, the cane toads dived into the ponds in

their thousands and used the rail corridor as something of freeway towards Darwin.

Graham Sawyer, a co-founder of Frogwatch NT, an independent organisation set up several years ago to monitor the arrival of the toads, has been working on prototypes of a trap adapted from the railway experience.

The traps, being developed by Sawyer's offsideer, Ian Morris, could be sold to householders or the information on how to build them given away. The traps have a metal frame and are lined with plastic and inserted into a hole in the ground. They are filled with water and have a light placed over them, attracting insects which, in turn, attract the toads. The toads fall into the trap and are unable to escape and die in the holes.

Frogwatch NT is looking at making an appeal to all Darwin residents to arm themselves with the traps and fight the arrival of the cane toads, with dreams of the city becoming the first major population centre to resist the slimy pests.

"A vast part of the Northern Territory has already succumbed to them," says Sawyer. "People in the Northern Territory are closer to the environment and the bush than elsewhere in the country."

"Territorians get a real buzz from the native wildlife, like seeing a goanna in their backyard. I quite admire cane toads but the things that they're going to do to our ecosystem is frightening."

Sawyer is critical of the management of Kakadu National Park, which he believes adopted an "all too hard" attitude to dealing with the recent "colonisation" by cane toads.

Rangers have advised locals and visitors not to bother killing cane toads because of not just its perceived futility but fears that people may mistake a protected native frog for one of the invaders.

Kakadu's "frog-poles", lofty solar-powered "electronic ears" originally erected to collect data from the sound of native frogs, now serve another role in determining the numbers of cane toads and the changing diversity and density of the native frog population.

It will take a few more wet seasons for scientists to properly analyse the data.

In the meantime, Sawyer grows impatient for a more concerted attack in the NT, worried that the cane toads will not only kill wildlife but also greatly deplete reserves of insects in billabongs and rivers.

"There's a lot of monitoring but having already come all the way across from Queensland there's still no definite answers on whether cane toads are wiping out native species or not."

Sketches by Stephen Cowley
xmung-one@bigpond.com
9564 5817

11 With compliments campaigner Bernie and Dot Laughlan
Save the ADI site St Marys campaign
Website <http://www.savetheadiseite.bmt.com.au/>

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. **Robert Wall**

OUR SPRING-SUMMER FIELD TRIPS PROGRAMME IS IN RECESS.

WE ARE HOWEVER CONDUCTING THE FOLLOWING WINTER BREEDERS EXCURSION :

April 23 –26

Jervis Bay - Camp-Out.

Leaders : Arthur White / Karen White.

Jervis Bay is a 3 hour drive south of Sydney. It boasts some of the most pristine coastline sites remaining in NSW. Arthur assures us there are some excellent frogging sites here. Few members may be aware of Arthur's extraordinary qualifications & standing in the frog world. -Not many can claim to have ever described a new species. He has had a wealth of material collected in some of the country's most prestigious scientific journals. He is currently involved in research on both ancient turtle fauna & present day fauna of the Riversleigh fossil site. An associate of the Aust. Museum & the University, we are fortunate to have Arthur show us around Jervis Bay this weekend. See newsletter article for further details. Please book directly with Arthur or Karen White (ph. 9599-1161).

BOOKED OUT

BOOKED OUT

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 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.

CONTACTS

FROGWATCH HELPLINE 0419 249 728 Email fatsgroupnsw@hotmail.com Website www.fats.org.au

COMMITTEE

	Phone	Email
Arthur White	ph/fax (02) 9599 1161 (h)	arthur.white@bigpond.com
Barbara Bohdanowicz	(02) 9665 9330 (h)	
Wendy Grimm	(02) 9144 5600 (h)	wgrimm@ar.com.au
Karen White	ph/fax (02) 9599 1161 (h)	
Andrew Nelson	(02) 9411 6068	awnelson@optushome.com.au
Lothar Voigt	ph/fax (phone first) (02) 9371 9129(h)	
Punia Jeffery	(02) 9969 1932 (h)	
Robert Wall	(02) 9681 5308 (h)	
Marion Anstis	(02) 9456 1698	marion@zeta.org.au
Alistair MacDougall	(02) 9398 9885 mob 0411 277 070	a.macdougall@union.unsw.edu.au
Monica Wangmann	(02) 9797 6543 (h) mob.0418 992 766	wangmann@tig.com.au

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

Meetings are held on the **first Friday of every EVEN month** (February, April, June, August, October and December) at 6.30pm for a 7.30pm start. Future meetings MAY be changed to a different day of the week. **NO MEETINGS ARE HELD ON GOOD FRIDAY.** Check each newsletter for alternate dates. 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 NEXT THE MEETING.