

THE FROG AND TADPOLE STUDY GROUP OF NSW INC.

P.O. Box A2405 Sydney South NSW 2000

THE NEXT MEETING

Friday 7th April, 7:00 for a 7:30 pm start at the Australian Museum

Beyond FROGFACTS 5:

SPEAK		ERS:	
•	Michael Mahony	Radio-tracking Great Barred Frogs	
٠	Michael Mahony	Taking the Lesueur's Frog species apart	
•	Jacquie Recsei	Highlights from the ASH Conference	

The latest on Green & Golden Bell Frogs
 You My 5 favourite frog slides

Right at the end: The "regular features"





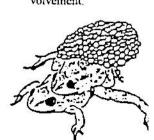
Current major FATS Group activities

Endangered Frog Survey:

A study of the habitat characteristics, present distribution and population sizes of 21 species of "at risk* frogs in NSW. Partly funded through the National Estate Grant Program.

Frog Week:

First week every November. Many activities take place to focus public attention and interest in endangered frogs. We encourage much public involvement.



THE REGULAR FEATURES

News announcements Project updates Discussions

Arthur White

and of course:

Refreshments, rafile and fun Informal atmosphere Visitors and neighbours welcome No \$2 door donation for paid-up members

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COMMITTEE (AND TELEPHONE ENQUIRIES)

Harald Ehmann	President, ENDFROGS coord.&data,	018-257 585
	FROGWEEK(scientific)	fax (08) 270 3280
Lothar Voigt	Chairman, AAHS Councillor, FROGCALL ed.,	
	Public Officer, field trips contact	(02) 371 9129
David Millar	Secretary	(02) 796 8526 (h)
Martyn Robinson	Treasurer	(02) 339 8226
Giselle Howard	FROGCALL ed., Membership Sec.	(02) 897 5066 (h)
Deborah Pergolott	(02) 637 2557 (m/c)	
Mark Wilson	FROGCALL ed.	(045) 721 583 (h)
Philip Green	Schools	(043) 882 321
Karen Thumm	Media	(02) 482 1017
Jacquie Recsei*	catering	(02) 476 2853 (h)
* Peter Jones res	signed from the committee due to work pressure.	
	by Daharah and Isaasia	

been taken up by Deborah and Jacquie.

Consultants to Endangered Frog Survey:

Michael Mahony (049) 772 773 (h)
Arthur White (02) 599 1161 (h)

THE LAST MEETING (3. 2. 95)

We were wedged into little more than a broom cupboard, but because we all quite like each other it didn't matter so much. Next door, the Hallstrom Theatre where we should have been, was gapingly empty. The presentations however more than made up for our sardiniferous predicament.

Shane Gow gave us an account of a pair of Whitelipped Tree Frogs spawning. Perched high up on the back of a chair and croaking like a hoarse dog, his account was so graphic he had us all sitting on edge too. (We expected him to tip over any moment.) Once we had understood that the male frog barks incessantly all night long, we could envisage both his and Shane's relief when the deed was done.

And six weeks later they did it again! The first time with, the second time without the aid of a rain bar; each time about 800 eggs spread all over the surface; only light feeding of the parents in between. Hatching rate perhaps 90%; baby tads initially jet black, then with silvery-orange side stripe and later getting light brown with white tummies. Those that were kept at 30-35 degrees metamorphosed after one month; cooler ones were very much slower.

Arthur White showed us slides of froggers upending themselves in creeks at Barrington Tops. And there were slides of spawn masses of Litoria subglandulosa (the beautiful Tablelands Tree Frog known to science only since 1983), in its night-andday colour variations. There were slides of "brevies" (the Green-thighed Tree Frogs) from the Bulahdelah and Taree areas - all in lush forest country near ephemeral water. Arthur found only a few in each area; 18 was the maximum in one location. And at Tyagarah Swamp near Byron Bay he shot (with his camera only, before anybody faints) both the long-nosed Wallum Reed Frog (Litoria olongburensis) and the Wallum Froglet (Crinia tinnula).

Peter Harlow brought his slides of the Redcrowned Toadlets of Campbelltown and his pix of the Eastern Owl Frog - 6 to 8 calling in one spot. We were also treated to some shots of the Smooth Toadlets *Uperoleia laevigata*, minus their noisy racket.

Deborah Pergolotti focused our eyes on Mixo metamorphs. They change their eye colour as they grow up. Not an easy task to identify the young of the Barred Frog species when they keep doing that.

Philip Green splashed with hordes of school kids at the Watagans and at Barrington Tops. Judging by their serious fun and concentration, it was clearly in preparation for the 3 Unit frogging course and not for Frogs in Society.

Arthur then ran an impromptu Q & A session on some of the sites of Green and Golden Bell Frogs and on some of the problems they are facing.

Lou Petrucco relayed a request from Mike Tyler whose student needs skin secretions of *Litoria rubella*, the Desert Tree Frog. The frog will not come to harm over this. If you can help, ring Lou on (02) 262 2300 or (02) 520 3935.

For the **auction**, Lou brought in several donated Sydney Aquarium tickets, Giselle donated three toy frogs and I had various odds and ends. Together they fetched \$67, and upward trend at the end of which there will be leather upholstery for all! If you can donate anything for next time (which will be a <u>raffle</u>), we will all have great fun giving it away!



Our Annual General Meeting will be on Friday, 2nd June at the Australian Museum, following right after our normal June meeting. (There will be another *Frogcall* before then, but that won't give you enough prior notice.)

At the AGM we elect a new committee. If you can donate some of your time to the cause, please put your nomination in. Forms will be available at the April meeting or by ringing me. They should state the position you are nominating for, be countersigned by two other financial members and reach the Secretary one week before the AGM. (Only nominations for any unfilled slots can be accepted after that.) The committee positions are listed on the front page of this issue. To see what's involved, you can ring the present incumbents and/or Harald or me if you wish.

LV



ASH CONFERENCE AT LAUREL HILL PRISON FARM

The 23rd meeting of the Australian Society of Herpetologists Inc was attended by some 120 people. Many of them are also members of the FATS Group. This means if you would like to look at the abstracts, they will be available.

The accommodation was in "blocks of rooms", varyingly called Pentridge or Boggo Road - a great atmosphere! The complex has now been taken over by Forestry, and I noticed the road opposite the prison farm was Wombey Road (supposedly a co-incidence only).

The following samples have been taken from the abstracts:-

Frank Lemckert (State Forests) spoke eloquently on the Dorrigo area surveys. A brave and good-humoured talk considering the amount of flak Forestry has been receiving.

His findings: Comparisons done (in both moist and dry forests) found relatively little difference in the similarity of species in logged and unlogged sites. He suggested (from his data) that the majority of species are unlikely to be affected by logging operations. The Hip-pocket and Sphagnum Frogs may be negatively affected as they breed away from water.

Burning and grazing are considered to be more important issues and are currently being looked into.

Ross Knowles gave a presentation on systematics and conservation of a new frog genus of S.W. Australia. (You may have seen photos of this frog in Landscape magazine.) It is a myobatrachine genus. Individuals are bright orange and light blue ventrally and black dorsally with huge parotid glands.

The frog is known from three sites in peat swamps. The habitat is restricted and fire prone, posing questions about the long-term conservation of this genus. (Sounds familiar?)

Karen Thumm presented a talk on the breeding biology of the Red-crowned Toadlet, *Pseudophryne australis*. This species can be shown to breed eleven out of the twelve months of the year and breeding is related to the availability of water, not the temperature.

Will Osborne reported on the conservation status of Australian alpine frogs. Nine species in particular are of conservation concern, including the Spotted Tree Frog (Litoria spenceri), the Baw Baw Frog (Philoria frosti) and the southern form of the Corroboree Frog (Pseudophryne corroboree). P. bibronii has also declined in the A.C.T. Major population declines have been noted in Litoria verreauxii alpina, L. raniformis (the Growling Bell Frog) and possibly of an undescribed taxa L. sp. aff. flavipunctata.

A comprehensive conservation programme is needed urgently for amphibians in the Australian Alps.

Scott Thomson of the Uni of Canberra organised a round table discussion and slide shows on the Bell Frogs of the Southern Tablelands. A copy of his preliminary findings and those of Murray Littlejohn and of Will Osborne are available if anybody wishes to borrow them.

It was amazing to see the amount of cooperation and knowledge-pooling by our famous herpetologists.

Jacquie Recsei

(Ed.:- Jacquie will give us more highlights from the prison farm at the April meeting. We will he a captive audience! But read on. Now that we know that logging may not be so bad for frogs, we will no longer be surprised that minefields are positively beneficial.)



TARGETING FROGS AT HOLSWORTHY ARMY BASE

As reported in the press, a fauna survey was conducted over a week in February. The two endangered "Schedule 12" species of frogs targeted: Pseudophryme australis (our little Red-crowned Toadlet again) and Heleioporus australiacus (the Giant Burrowing or Eastern Owl Frog). This is a sandstone area that looked promising, Sites for both species were found.

It was an interesting and enlightening experience. The army use this area for training in their tanks, demolition with explosives and to bomb the hell out of it! Unexploded ordinance can be found lying around.

Even with this use, it was astounding to discover that there is a considerable amount of bush rock still on the ridge tops and down into the gullies. In comparison to our national parks the place is relatively untouched. It would seem to be extremely important to exclude the public from some areas of national parks. This would also enable a comparison between public, locked away and merely mined natural areas.

J.R.

AUSTRALIAN MUSEUM HELPS FINANCE FROGCALL

top press! Phone call from Martyn Robinson: The Australian Museum has decided to pay for the postage of Frogcall at the current volume, from this issue onwards! A very pleasant surprise, totally unexpected and a great relief! Three cheers and a big thanks from the frogs and us!

CRINIA TINNULA DISTRIBUTION EXTENSION

Exciting wildlife discoveries don't always have to be in some remote wilderness area. They can be in your residential / industrial neighbourhood as the following illustrates.

Just one kilometre from my urban home at Berkley Vale near Wyong is a small *Melaleuca* swamp next to an industrial area. Fifteen frog species, including a Green-thighed Frog (*Litoria brevipalmata*) have been found in these environs.

The date was February 20; 3:00 am; 18⁹C air temperature and raining lightly. Pulling on my chest waders, I plunged bodily into the slime and slop of the swamp in pursuit of an unidentified chorus of frogs. About 20 males were calling from the bases of rush tussocks in shallow water and I got some very good tape recordings.

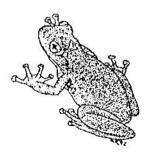
Despite standing over the top of the tussocks where they were calling, I could not locate any specimens, but maybe that was partly due to my diminished mental/physical capacity, give that it was now 4 am.

The tape recordings were subsequently played to Mike Mahony and Frank Lemckert, who both gave the ID as Crinia tinnula, the Wallum Froglet.

The previously known distribution of *tinnula* was S.E. Queensland, extending down coastal NSW as far as Smith's Lake. This new discovery represents an extension of approximately 150 km on the southern limit of their known range.

Philip Green

Ed.: - The Wallum Froglet is one of the 21 species of our Endangered Frog Survey. It has also been standing in the way of some notable NSW north coast developments. Finding a colony this far south is very good news indeed! - Now you see what you too can do for science when you come home late from the pub. All you need to do is learn your local frog calls. Practice them together before curfew!



THE BIGGEST FROG IN THE WORLD IS AN ALMOST UNKNOWN ANIMAL

The first European to have seen this rare frog was the missionary and naturalist G.L. Bates, and it was first described by the famous herpetologist Boulenger in 1906. For the next 50 years nobody cared about these amphibians. The little information that is in the literature all originates from

the first description by Boulenger. Even the "discoverer" Bates had never seen these frogs in their natural habitat. He was only a middle man between native Africans who caught the frogs, and the museums.

An interesting biological fact of this Goliath Frog (Conrana goliath) is its limited range of an approximately 250 km long coastal strip of densely wooded forest that reaches 100 km inland in southern Cameroon and Equatorial Guinea, south of the Bolondo River. This species of frog only lives in rapids and waterfalls of fast flowing rivers with lots of water. The Goliath Frog avoids strong sunshine and needs high humidity. The water has to be rich in oxygen, free of tannins and at a temperature between 16° and 23° C. The pH level has to be high. Goliath Frogs stay hidden for most of the day in water, or on rocks that get a constant spray of water.

Some scientists have reported a maximum weight of 6 kg and a head and body length of 600 mm but these reports seem exaggerated. The biggest Goliath Frog known to have been caught weighed 3.3 kg, the body measured 320 mm and the hind legs 440 mm.

Examination of the stomach contents show that the Goliath Frog's diet consists mainly of beetles and other insects, crustaceans, spiders, worms, other amphibians and even small rodents. Egrets, herons and other wetland birds are the main enemies of the young froglets. The adult frogs may at times be prey to crocodiles. The native people of Equatorial Guinea and Cameroon are also very fond of the meat of these frogs.

The likelihood of Conrana goliath surviving the population explosion of Africa seems safe at the moment thanks to the extreme inaccessibility of its habitat and the difficulty in catching them.

From "Das Tier" (Sep. 72), extracted and translated for you by Rainer Enke

MEMBERSHIPS

If any of your friends missed out on this Frogcall it may be because they didn't realise they hadn't paid their membership fees and perhaps hadn't read the notices in the last few issues.

Regretfully, we had to drop 50 names off the mailing list, to save our financial members about \$500 per year. If your friends miss us now, please bring them back.

For the rest of us, our renewals are due in May. A renewal form will be in the next (April) Frogcall. [If anyone paid for a year and a half, then the system knows about it. Giselle or Deborah can tell you if you ring them.]

LV.



FIELD TRIPS

Now that the drought has broken in these here parts (and now that at least for frogs the surface is wet enough in most other parts), let's jump right into it!

Why not ring one of the field trip leaders whose phone numbers were in the two previous issues. If unsure, ring any one of the committee members. The field trips are free, and they are good for you and for the frogs.

Just a few simple points to remember:

- No collecting of any frogs please. In NSW it is at present against the law. We will inform you when the negotiated changes come into effect.
- No translocating please. It's not only hybridising around, it might also spread any frogs' diseases.
- If you don't have a license to handle and then release frogs, either get one or concentrate on doing tape recordings of their calls and on habitat descriptions onto the survey forms.
- For field trip leaders, it is best to have such a license. Hold/release licenses for our kind of work are easy enough to get from NPWS
- With State Forests it's a different matter. You'd need a scientific license from Ag. Dept. together with a complicated and \$100 per year Animal Ethics procedure. Not designed to be encouraging for amateurs, so nothing hands-on in State Forests then. (In Forestry Reserves it's usually enough though to ring the Forester beforehand.)
- We now have a Streamwatch kit, courtesy of Sydney Water (formerly Water Board). If you want to borrow it for that special study site, give me a ring.
- We also have four frogging kits available on loan - for regular field trip leaders on a longterm basis! Please ring me if you want to try one out. They each consist of:-

(a) plastic tool box with

thermometer
tissue paper for wet bulb temperature
pH indicator kit
plastic bags & elastic bands
waterproof labels
small emergency torch
2 bandages
small notebook & pencil

small notebook & pencil
(b) clipboard (for keeping in car) with
pen & spare paper
survey data sheets
survey code sheet
expenses claim forms
participants' confirmation forms
checklist
forms for Frogcall & franked envelopes

 In addition to the above, you should bring your own:

good torch & batteries

mozzie roll-on (they can make you sick) long-sleeved clothing against mozzies set of spare dry sneakers, socks, trousers (unless you have fancy wading gear) food, water, soap camping gear if staying overnight

 And in addition to all that, the field trip leader should have (or check that it's coming along or not needed):

tape of frog calls tape recorder with mike (eg built-in) frog field guide (Cogger, Robinson) map(s) compass barometer if available

Now that we are all kitted out, let's have some field trip news.

LV.

SOSSA

SOSSA? The Southern Ocean Study Assn Inc (Wildlife Research) of course. Janice and Lindsay Smith of SOSSA recently found Heleioporus australiacus (the Giant Burrowing or Eastern Owl Frog) on Mt Port Kembla. First one male and the next night a female.

This is how I got to meet Janice and Lindsay. They are extremely interested in frogs, have lived in the Illawarra all their lives and are able to provide valuable information. If you are going on a field trip in the Illawarra it is well worthwhile to contact them before you go {phone (042) 716 004, fax (042) 724 628}. They would be delighted to come on any frog field trip.

J.R.

GIBBA

The field trip on 21, and 22.1, to Gibba Swamp and Tinda Creek was quite something. (That is the area where a mushroom compost making plant is proposed, surrounded by and draining into Wollemi National Park and extracting 300 cubic metres of ground water per day - adjacent to the swamp. Those of you who have read FROGCALL. No. 13 will know all about it.)

Barbara, David, Mark, Matthew and I went to have a look and found eleven frog species calling: the tree frogs Litoria tyleri, peronii, dentata, fallax, phyllochroa (which actually wasn't calling but sat out in the open) and verreauxii; the ground frogs Limnodynastes peronii and dumerilii, Uperoleia laevigata and fusca and Crinia signifera. That was after dusk and after there had been a few drops of rain that day and the day before. At a waterhole down the road were also tiny Lim. ornatus metamorphs on the bare ground, probably too small to be found in the dense ground cover around the swamp. On the way back to the Colo we met some yapping Litoria latopalmata, at a hole that was dry for much of last year and where there are (hopefully, still are) also Eastern Owl Frogs. Now the Colo was rising, the bridge was going under and the distant chorus

of Litoria nasuta and lesueuri we couldn't get to. The next day, needless to say, we spent loafing.

LV.

FROGS AND AIR PRESSURE

In the Newcastle area at least, I found that frogs call better when the barometer is rising, a falling barometer signals a southerly which frogs don't

seem to like.

I now found an item that may interest the FATS Group. I've got a new job in an outdoors shop where they sell a barometer/altimeter in a wristwatch. The boss gives a small discount for FATS members; also on Petzel head torches, batteries, raincoats, boots etc. Ring me on (049) 459 499 or (049) 430 095.

Gavin Ayre



Avocet Vertech

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FROGGY HAPPENINGS

Melanie from Mummelgum wrote in to warn of some dangers to frogs in the home:

"We live in northern NSW and have many resident Green Tree Frogs. They live in the walls, the bathroom or the kitchen. We have counted up to 12 in one night.

One dangerous frog trap is the electric jug. Not the old-fashioned type, but the new plastic ones with no lid, that you fill up through the spout. It is a sort of a funnel that the frog can slip into, but not out. It is very hard to check if there is anything inside.

The other potential trap is the Hoover twin tub washing machine. If the lid to the spinner is left open, the frog's weight moves the spinner sideways just enough for the frog to slip in behind the cylinder, and then can't get out. The only way to release it is for someone (me!) to remove the whole top of the washing machine."

Leanne and Brett of Enfield minded their neighbours. Green Tree Frogs in January - his pets for 10 years. They set up a 4' tank on the porch, as an aqua-terrarium with fem pots in shallow water and at first without heating. Well, they spawned the first night! The tads have been kept in clean water but a bit crowded, and by early March the first ones began to metamorphose at about 60 mm. What to do with them all is now Leanne's and Brett's big headache.

Jean-Marc sent a sample poster on the disappearing rainforest frogs of Eungella. See it at the next meeting. Buy it for \$10 from the Cape York Herp. Society, P.O. Box 114, Palm Cove Qld 4879, or for Dr. Jean-Marc Hero, James Cook Uni, (077) 814

Ku-Ring-Gai Council's "Family Frog Fun" on 12th February turned out to be just that, About 40 adults and 10 kids took part and walked home all enthused about digging ponds. Thanks to the Council for the \$50 donation for FATS!

The Ku-Ring-Gai Bushland Preservation Society was given a frog talk on 16th February - a turnout of 40 urban environmentalists who took to frogs enthusiastically. We may yet get some good data from some of them!

L.V.



FROGS, BANANAS AND PYJAMAS

An open sports car would be a frogger's delight. Or at least a utc.

Some folks are so responsible they leave their phone number with the local greengrocer, with a message to ring if a frog turns up that needs help. In a large city there must be hundreds of displaced tropical frogs in markets, trucks and fruit shops, mostly in and around the shipments of bananas.

There is also a frogger, well-known but a bit too modest to be named, who once had a terrifying experience as he seated himself upon the toilet. (I shall open the lid on this banned subject matter only for the purpose of this argument and close it again hereafter.) The resident Green Tree Frog below, no doubt equally terrified, grabbed him and moreover, swung on him! And our frogger performed his finest jump vet.

Where such frogs are common this may be a more frequent experience than is normally let on. Firstly, among the few photos I treasure are some of a small coastal town in northern Queensland, showing the cardboard inserts in the public toilet block. Each insert, nine in all, is cut into a shape to fit under the seat and bears the felt-penned message: "Please insert under seat after use, against frogs."

Secondly, if I drove past my local fruiterers, slowed down for easy conversation, I would get pelted. With produce. Merely for asking them, "Got any frogs round your bananas?"

I shall contain my impulse until I have found a way of harvesting so much offered fruit. An open sports car would be handy. Or a ute.

LV.



Madame, your stocking is of great interest to any connoisseur of frogware!

There's customers all around us, Claude!

Perdon, naturellement I mean once your leg is removed out of it, and when the foot end is cut off and the top end is attached to a hole in the side of your frog home. An upright styro box...

That's what you wanted my stockings for??

Ah oui, Madame. It is well-known that flies don't occur inside stockings. The stocking allows you to reach inside the cage without any flies getting out. Par example, you can put a fresh bowl of fly pupae in through the stocking, with a perforated lid over the fly bowl so the frogs can't jump in with the pupae which would stick to them, but the flies, as they hatch, can get through the holes in the lid to the frogs. And when the stocking is not in use, make a loose knot in it. Remember, frogs do slide along stockings.

That's what you said yesterday, and the fool that I am, I brought my stockings in' I even brought you a whole bag of my old tights. I thought you had honourable intentions!

Tights! Oh merci, Madame! Pantyhoses are terrifique to clip over plastic tanks so that tiny fruit flies cannot get out. Just tie one leg off at the top but leave it attached as a spare. Cut the foot off the other one and insert a jar of fruit flies through it into the tank for your baby frogs.

Madame, you look so unhappy. Let me assure you that your tights are just perfect.

They are?

They are neither Toulouse nor Toulon'. If I may say so, they even fit well over a plastic bucket! Put some sawdust into the bucket, then a liver, let it get flyblown and close it off with your tights. One leg removed and tied off, the other left uncut. I am sure you will wish to keep it outdoors in the sun, perhaps with a garbage bin lid loosely over it against rain and a large saucer with water under it against ants. When all the nutritious blowflies hatch, lift the dangling leg high up and kick the bin to make the flies buzz straight up into the foot. Squeeze off by the ankle, take indoors and invert into frog tank through hatch in tank lid or side. Voila!

I have never been so insulted in all my life! Give me back those tights so I can strangle you!

But Ma...argh...argh

Heh, Heh! You had her at your throat this time, boss, didn't you?

In Pari' when I was young I had all ze women at my feet. Why such extremes?

Yeah, somewhere in between maybe ...

She would not even let me explain how stockings can be pulled over agricultural pipe in garden ponds. Pre-filters always clog up with algae and the pond pump will no longer work. But if you replace the pre-filter with a long length of agpipe, this won't happen. The stockings prevent baby tadpoles and fish fry from being drawn into the pump through the holes in the pipe wall. Of course, one could use our special roll of "agline sock" or even fly screen or shade cloth tied around the ag-pipe, but stockings are so handy.

You still got one tied around your neck, you know.

I am trying to undo this knot to remove it before Monsieur Flick arrives here. In the meantime, please push our new box into the doorway.

It's enormous!

Hey, what's this whacking big box here, sticking half onto the footpath?

Our new Automatic Tights Machine, Monsieur Gendarme. People donate old tights and put them in at the top of the ATM, like this. You can withdraw them at the bottom.

Old tights??

Oui, and stockings too. It is a full service. I am attempting to stay ahead of the banks in this regard. But they are beginning to copy me.

So that's why there were so many people outside the bank with stockings over their heads! You started it!

You could also automate your villain catching with such an ATM. Simply make your police station entrance look like that of a bank, install an ATM outside and channel all those who rush in with stockings over their heads, through turnstiles, into a cell. When full, feed to the frogs.

LV.

Houses go with the frog and toad

A Grafton city councillor believes that "duings like koalas shouldn't be disturbed [by development] ... but it shouldn't po to the riduculous extreme where a little road could hold up a housing development for 100 homes." (Herald, December 19).

This attitude may be shared by others. However, there are several reasons for thinking differently about the significance of "little toads" or, more appropriately in Australia, "little frogs".

First, to many people, "little things" like frogs are just as interesting, if not more so, than "big things" like koalas and other "cuddlies". All species have interesting stories to tell, because they have all come through

the torturous evolutionary process in their own unique ways.

Learning these stories and passing them on to others are part of the richness and strength of our culture. Would it not be a said day when something as unique and as irrecoverable as a species is given over to extinction for something as mundane as a few houses whose location had been poorly planned?

Second, "little things" like frogs can be commercially important, not only to tourism but to other enterprises as well. For example, when Australia's two unique stomach brooding frogs disappeared a few years ago, they took with them the "secrets" of how the stomach's

digestive functions can be turned on and off.

Knowing these secrets might have been useful in treating human stomach ulcers. Further, frogs have a variety of secretions in their soft, moist skins that protect them from being consumed by ever-present bacteria and fungi. Hacteria and fungi are constantly attacking our own skins so learning how other species deal with this problem might be useful to us. But it is difficult to extract these secrets from an extinct frog.

Third, because frogs, specifically, live both in the water (as tadpoles) and in the air (as frogs) and have sensitive gills (as tadpoles) and skins, they serve as important "chvironmental canaries". To whose advan-

tage would it be to eliminate these easy-tu-read indicators of local environmental health?

Fourth, it is the "little things" that really make ecosystems run. Take away the insects, worms, bacteria, fungi and alt those other "little things" that we know so little about, and the whole life show comes to a screeching halt.

Finally, with some wit and planning we can probably have both "little things" and houses. It just takes enlightened people in the right places — like local councils.

Allen E. Greer, Principal Research Scientist, Inc Australian Museum, December 21 Sydney.

Coast naturalists in seventh heaven

Giant frog a 'once in a lifetime' discovery

By DONNA WALKER

Two Illawarra naturalists leapt for joy when they spotted a rare giant burrowing frog at Mt Kembla.

It was the first sighting of the endangered species in almost 20 years.

They phoned the Australian Museum and a frog expert in North Bornsby immediately after photographing the natural wonder last week

"Words can't really explain how excited we are. I doubt if we will ever see another one again in our lifetimes so it is an experience we are going to always remember," Lindsay Smith said.

"We were driving along the road and a friend of ours spotted the frog. The minute we saw it we knew what it was."

They then ventured further into scrub and discovered another burrowing frog. This time it was a pregnant female.

Although they spotted a pair, there was no guarantee the frogs would stay.

"If we went back there now we wouldn't be able to find them. That's why we took so many photos. It was an opportunity which will probably never come our way again."

Sydney experts confirmed the last sighting of the brown giant burrowing frog was at Darkes Forest in 1976.

"This discovery really has put Illawarta on the map as to as withlife is concerned," Janice Jenkins-Smith said.

The husband-and-wife team has been inundated with calls since making the discovery.

discovery.

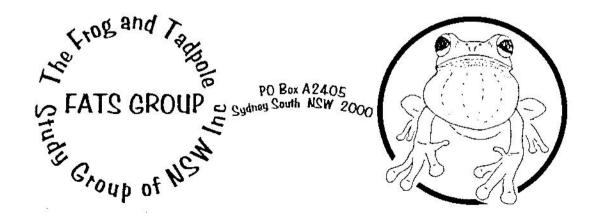
"Those who know frogs have a true appreciation of what we have found. It might be a bit difficult for those who don't know what we are on about to appreciate it," Mr Smith laughed.

"If you see a brown frog when you are

"If you see a brown frog when you are driving on wet toads, don't run over it and think it is a cane toad. We don't have cane toads in the Illawarra. It might just very well be a giant burrowing frog."



Find of a lifetime . . . Lindsay Smith and wife Janice show photos they took of the rare giant burrowing frogs they discovered at Mt Kembla.



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, October, December) at 7 for 7:30 pm. Visitors are welcome. We are actively involved in monitoring frog populations and frog studies, and we produce a newsletter FROGCALL and the FROGFACTS information sheets.