

FROG CALL



NEWSLETTER No. 73
September 2004

THE FROG AND TADPOLE STUDY GROUP OF NSW INC
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The Osram / FATS Group Frogmobile

You are invited to our FATS meeting
6.30 pm for a 7.30 pm start
Friday 1st October 2004
Australian Museum,
William St Sydney
entrance



MEETING FORMAT for 1st October 2004

- 7.00 pm Lost frogs are ready to display and collect from the Frog Rescue Service. People to take a numbered ticket. Please bring your FATS membership card and Amphibian Licence. Preference given to those who do not have a frog already.
- 7.30 pm Welcome and announcements.
- 8.00 pm Speakers:
Andrew Rank - Frogs of Germany.
Lou Petho - Bellfrog documentary
Alan Lane - Frogs of the Upper Blue Mountains
- 9.30 pm Mystery Tadpole answers and winners
5 Favourite Slides Anyone wishing to speak about their recent frogging trips or experiences is most welcome to tell all. If you have slides or other images that you would like to show, bring them along as well.
- 9.45 pm Auction and drawing of door prize
- 10.00 pm Tea, coffee and relaxed conversation.

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Frog and Tadpole Study Group of NSW Inc.

Minutes of the Annual General Meeting 2004

Date: 6th August 2004. **Venue:** Theatrette, Australian Museum. The meeting commenced at 7:30 p.m. and was chaired by Arthur White. **Attendance:** See attached attendance list. **Apologies:** S Weir. Minutes of the Previous Meeting: It was moved (W Grimm /M Wangmann) that the minutes of the previous AGM be accepted. Carried. **Business Arising from the Previous Minutes:** None
Correspondence: None

President's Report 2004:

The past twelve months have been a very active and sometimes taxing time for FATS. As usual, the keen stalwarts have tried to do more than they should, and this year we have had to take a long, hard look at how much we want the Society to expand. In brief, the executive has been stretched and we would prefer to continue to do what we do properly rather than taking on even more and finding that we cannot deliver.

The highlight of the 2003-2004 year was the unveiling of the Osram /FATS group FrogMobile. The FrogMobile was Lothar Voigt's brainchild and he almost single-handedly saw the project from inspiration to reality. Lothar found the sponsor for the FrogMobile, designed the FrogMobile and fitted it out. Once the FrogMobile was operational, Lothar has been ever active showing the FrogMobile, particularly at Centennial Park and other venues around Sydney. All of this effort is really too much for one man and we fear that Lothar will succumb to the heavy workload that he puts onto himself. Enormous praise must go to Lothar for seeing such an enormous and time-consuming project through to fruition.

FATS was also involved in the co-production of the "Frogs of Western New South Wales" poster with National Parks. In addition, Frog Facts 7,8 and 9 have also been produced and more recently, we had the Frog Rescue Fridge magnets produced. FATS members have been ever busy writing, soliciting small grants and looking for new ideas. Here I must especially thank Lothar, Marian Anstis, Wendy Grimm and Alistair MacDougall for assisting with these projects.

FATS has kept a high media profile and Lothar and I have been doing regular interviews on 2RRR. These interviews proved so popular that they have been taken up by 2SER for a wider broadcast and may also be used for national broadcast. In addition, we have both been involved in filming of segments for "Totally Wild" and have done articles for regional newspapers and magazines.

Our extra services continue to be very effective. Monica Wangmann and several other people have maintained the Frog Rescue Service which makes lost frogs available as pets. Monica is also our editor of FrogCall and she and the

editorial team never fail to produce a newsletter that is full of interesting reading.

FATS has conducted a number of community information days, especially at Centennial Park, Kuring-gai Wildflower Show, Manly Ocean Day and other venues. Many thanks to Lothar for arranging these days and to many volunteers who have acted as Frog Explainers. These outings rarely generate new members but do a lot to raise the plight of frogs and frog conservation in the general public. A special thanks to Wendy and Phillip Grimm and Punia Jeffery for giving up many weekends to help out.

Many other people work tirelessly to keep the Society running. Karen White has been our treasurer for a number of years and FATS has never been in such a good financial position since she took over the job. She also looks after the frog donations and merchandise sales (along with Wendy and Punia) at the meetings. Robert Wall has done a fantastic job of organizing the field trips for the year; these have become too popular and we have had to put a limit on many of the field trips. Alistair MacDougall has given great assistance with printing and layouts for our published material, and he and David Nelson have also been updating our website.

Andrew Nelson has been our new Membership Secretary and he has maintained the membership lists and mailing lists for the Society. Wendy Grimm is our Secretary and Girl Friday and does too many jobs to mention. FATS can only exist and do all of its activity because many people are very generous with their time.

I thank every one of you for keeping FATS alive and strong. With this sort of support, next year will probably be just as dynamic and just as much fun. I urge all FATS members to think about how you could also help the Society promote the cause of frogs. It was moved (W.Grimm/L.Voigt) that the President's report be accepted. Carried.

Treasurer's Report (Karen White): Statement of Income and Expenditure for the financial year 1/7/2003 to 30/6/2004 see page 4. FATS meeting report is on page 8.

OSRAM / FATS FROGMOBILE display Centennial Park

Arthur White with phasmids

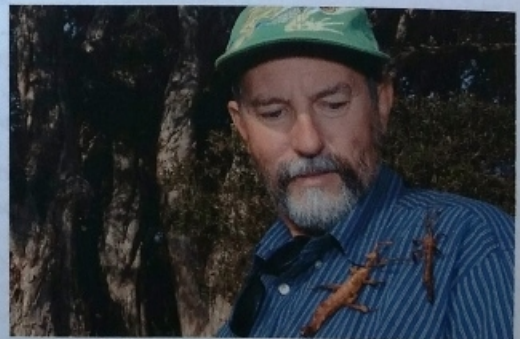


Photo by Holli and Annemarie Hollitzer

THE OSRAM / FATS FROGMOBILE

AT THE WILD AUSTRALIA EXPO.

The OSRAM / FATS Group Frogmobile was just about the wildest thing at just about the wildest expo Darling Harbour has seen! This, at least, was the comment from some pretty wild people in the crowd.

And what an expo it was! Maybe you were among the 18,000 visitors on that first weekend in September. And maybe you were bowled over by that big saltwater crocodile in the side-view swimming pool. Maybe you were transfixed like I was by the thorny devils stalking through their desert landscape; maybe you were overwhelmed by python after python, all big and fat and end-to-end going if not entirely round the harbour then certainly round the huge exhibition hall. And there were plenty of venomous snakes and lizards and turtles as well, plus some of the fluffy and feathery cuddly stuff.

Lots of the animals were in long rows of Perspex-walled aviaries, with realistic habitats, all very neat and practical. Cages have become very fancy, too, designed for the opulent living room on the outside and with all sorts of climate controls on the inside. Then there was the spooky cave, the Australian Museum's pre-historic animals (even the Supercroc), the best-in-show competition, the mini-seminars and the conference. Full marks to Anthony Stimson and his friends who organised it all!

But what about the frogs? I guess that is where FATS came in. The Frogmobile towered over the other exhibits and could be seen from far and wide. None of the visitors could have missed it. Closer up, the crowd was struggling for window space, to see the frogs in their habitats inside. There were frog displays on tables outside the FM as well, we just couldn't fit it all in. And we again had lots of frog explainers at kiddie&frog photo takers and donation wringers and crowd wranglers - amongst them the Grimms, the Nelsons, the Whites, the Punia, Marion, Monica, Alistair, Alexahnder, Merinda, John and quite a few others including innocent passers-by who I thought had come to help and who we pressed into a bucket brigade. Many thanks to all.

The opposite corner of the exhibition hall also had a distinctive frog flavour. Arthur was giving a talk about how to keep frogs in the garden. And across Darling Harbour, at the concurrent (and very reptile-heavy) conference, I restored the balance by talking about how to keep frogs indoors. Which leaves little room for anywhere else one could possibly keep them.

L.V.

FROGMOBILE IN FROGS' WEATHER

From the log of the OSRAM / FATS Group Frogmobile:

Sunday, 15.8.04., 4:30 a.m. - Time to wake up. Can't move yet. Try again later.

5 a.m. - Had a dream about poison dart frogs. No wonder I couldn't move. Try some breakfast.

5:15 - Clean and bleach the plastic frog cages I didn't finish cleaning last night. Hard to find them in the dark. All spattered with sand again. Must have been raining overnight.

6 a.m. - Hosing the cages out. Yep, raining, but am wet anyway.

6:20 - Pruning the lemon tree back again before I get caught doing it, but the frogs need twigs to sit on. Trying to find the other stuff for putting in the transport cages.

6:40 - Catching and packing the frogs. Then the taddies and fish.

7:30 - Still catching frogs.

7:50 - Packing the handouts and other paperwork. Can't find half the stuff and the other half is dog-eared. Run off new labels for the frog cages. Trying to stick them on the wet cages without soaking them.

8:30 - I need all the garden hoses that had got tied back onto the fence since last time. Rolling them up in the mud. Then rolling up the extension cables, indoors, but also in the mud. The main thing is it's raining at last.

9:15 - Time to start packing the Frogmobile and the truck, starting with the 4 recharged truck batteries. Truck's right down the road. At least the FM's in front of the house but the planked-off space in front of it is gone. Plank's lying on the greenstrip and a strange car is in the spot I need for towing the FM out.

10:00 - Still stuck. Nobody appears to own the strange car. Can't remember what else is on the packing list that's already in the truck. Doesn't seem to be full enough.

10:15 - Managed to wiggle the truck against the tow bar at right angles and get the FM out. Must have built up a queue all the way back to Bondi Junction. But we're on the way!

10:31 - Arrive at Centennial Park. Monica, the Whites and Punia already there and worried. Grimms and Nelsons arrive. Too windy for opening the FM up.

11:00 - Plastic cages are put on the display table but get blown off by the wind. Worked out that 3 people can adopt postures to hold 9 cages down, leaving the others to find rocks for putting on the lids.

11:30 - More FATS helpers coming, holding the handouts down. All very busy.

12:00 - A few visitors turned up, despite the weather. Quickly opening up the FM for them. Chasing several blown-off posters across the park, with visitors helping. Helping with frog conservation, in the wider sense.

Afternoon - Weather ominous but did not deter us from eating heaps of Fiorella's and Karen's finger food. I drank most of Wendy's coffee. Felt very happy. Our estimate was around 300 frogweather-hardened visitors for the day. On the last two occasions at the same spot (23.5. and 4.7., both sunny days), we had a total of 3000 people visiting the Frogmobile. That makes 3300 more people who have been exposed to our message (yeah, and Osram's, too).

L.V.



Statement of Income and Expenditure for the financial year 1st July 2003 to 30th June 2004

01/07/02 – 30/06/03

01/07/03 – 30/06/04

Opening Balance	\$ 25713.45		\$ 18518.29
<u>Income</u>	\$ 76.91	Interest	\$ 154.05
	\$ 10271.90	Matured IBD's	\$ 5342.55
	\$ 27.45	Sundry Income	\$ 52.00
	\$ 8898.00	Trivia Night Income	\$ 525.00
	\$ 273.00	Membership	\$ 7640.00
	\$ 819.00	Donations	\$ 1025.00
	\$ 2140.50	Grants	\$ 620.00
	\$ 1500.00	Sales	\$ 623.00
	\$ 1247.00	Auction/Raffle	\$ 1629.00
	\$ 852.00	Rescued Frogs	\$ 1175.00
		Sale – Tadpoles of Aust	\$ 190.00
		Field Trips	\$ 2826.00
<u>Total Deposits</u>	<u>\$ 26104.76</u>		<u>\$ 21801.60</u>
	\$ 51818.21		\$ 40319.89
<u>Expenditure</u>	\$ 9.00	Bank Charges	\$ 105.00
	\$ 785.00	Insurance	\$ 785.00
	\$ 39.00	Fair Trading	\$ 40.00
	\$ 384.00	Printing – Sundry	\$ 1174.70
	\$ 107.56	Stationery	\$ 893.65
	\$ 1166.74	Postage – FrogCall	\$ 1092.26
	\$ 19.75	Postage – Sundry	\$ 34.50
	\$ 2609.95	Printing – FrogCall	\$ 1550.00
	\$ 2719.00	Venue/Field/Post Box	\$ 3952.15
	\$ 1366.75	Herpetofauna	\$ 1482.25
	\$ 1000.00	Donations	\$ 1400.00
	\$ 1139.26	Sales – Expenditure	\$ 356.75
	\$ 55.00	Subscriptions	\$ 120.00
	\$ 650.60	Sundry Expenses	\$ 649.40
	\$ 20357.32	OSRAM grant expend	\$ 13159.56
	\$ 890.00	Mobile Phone	\$ 878.38
		Trivia Night Expenses	\$ 528.30
		NHT Grant Expenditure	\$ 3400.00
<u>Total Payments</u>	<u>\$ 33299.92</u>		<u>\$ 31601.90</u>
<u>Closing Balance</u>	<u>\$ 18518.29</u>		<u>\$ 8717.99</u>

TOTAL FATS ASSETS

Cash in Bank \$ 8717.99
 Investments \$22114.65 (\$603 interest re-invested)

It was moved (A.White/L Voigt) that the Treasurer's report be received. Carried.

Election of Office Bearers

President: Arthur White (K. Wangmann/K White) Duly elected. **Chairperson: Alistair MacDougall** (M. Anstis/P Jeffery) Duly Elected. **Secretary: Wendy Grimm** (K. Wangmann/A.White) Duly elected. **Treasurer: Karen White** (L. Voigt/K. Wangmann) Duly elected. **Membership Officer: Andrew Nelson** (A. Brooke/ L.Voigt) Duly elected. **Publicity/Exhibition Officers: Lothar Voigt** (K.Wangmann/ A. Brooke) Duly elected. **and Punia Jeffery** (M.Wangmann/ L.Voigt) Duly elected. **Field Trip Coordinator: Robert Wall** (L.Voigt/K White) Duly elected. **Editorial Panel (3): Katherine Wangmann** (M.Wangmann/P Jeffery) Duly elected. **Monica Wangmann** (K.Wangmann/P Jeffery) Duly elected. **Web Master: David Nelson** (A.White/ A/Nelson) Duly elected. **Quarantine Officer: Marian Anstis** (P.Jeffrey/ W. Grimm) Duly elected.

General Business: None. There being no further business, the AGM was closed at 8pm.



Karen and Arthur White



Mr Livermoore (the frog)

Photos by Alistair MacDougall



WILL THE REAL LESUEUR'S FROG PLEASE STAND UP !

For many Sydneysiders who enjoy frogging, Lesurers Frog *Litoria lesueuri* has been an enigma. This frog is common along rocky streams to the north. South and west of Sydney, yet its body form is not consistent in this range. The most obvious change was in the colour of markings in the back of the thighs. Lesueurs Frog to the north of Sydney typically have bold yellow and black blotches at the back of the thighs whereas Lesueurs Frog to the south of Sydney had milky blue spots on the back of the thighs. Lesueurs Frog in the Blue Mountains could have yellow, blue, or white or lack blotching altogether.

All of these frogs had a great number of similarities, most noticeably that the males went a lemon yellow colour in the breeding season and their mating calls were all very similar. Their calls consist of a soft puttering sound which often cannot be heard above the noise of running water close to their calling sites. Biologists have queried whether the mating calls can be heard by the female frogs and that the female may only be responding to the visible vibration of the male's vocal sac. So what is happening with Lesueurs Frog?

Recently, Steve Donnellan (from South Australian Museum) and Michael Mahony (from Newcastle University) decided to attack the problem of Lesueurs Frog using genetic and biochemical methods to unearth the true identity of the frog. They examined the chromosomal structures of frogs collected from along the length of eastern seaboard of Australia, north of Cairns to Victoria. They also examined a number of genetically-linked enzymes to determine the genetic compatibility of these frogs. Their results showed that there are currently THREE frog species masquerading as Lesueurs Frog. Having found this, they had to determine which one was the real Lesueurs Frog. Fortunately, the three frog species have fairly discrete ranges and so they went back to the original specimen (holotype) of *L. lesueuri* and check where it came from. This frog was collected in 1841 from Port Jackson. It had been sufficiently well preserved to enable final species determination.

The Real *Litoria lesueuri*

The real *Litoria lesueuri* is a stony creek frog with small milky-blue spots at the back of the thighs. This frog ranges from north-eastern Victoria northwards to the Hawkesbury River.

The Pretenders

The stony creek frog with the yellow and black blotches in the back of the thighs is now called *Litoria wilcoxii*, named after Mr James Wilcox who collected a specimen

from near Grafton in 1947. Wilcox's frog extends from Sydney to Cairns in far north Queensland. At Sydney, *Litoria wilcoxii* is found in the western region, along the Nepean River and Georges River, at Bents Basin and Douglas Park.

In far north Queensland lies the third species, now called *Litoria jungguy*. The species name is the local aboriginal word for the frog. *L. jungguy* is a rainforest version of the stony creek frog and ranges from north of Cairns to south of Tully in north Queensland. It has small yellow or white dots at the back of the thighs.

What about the intermediate forms?

While these three species are easy to identify, there are other stony creek frogs that are halfway between them or have a mixture of features. What are these frogs?

Donnellan and Mahony were able to answer this question as well. The three species of stony creek frog have only recently (in the late 10,000 years) begun to separate and specialize. While they are true species now, there is still some potential for cross-breeding. The intermediate frogs that you find in the mountains around Sydney are hybrids between *L. lesueuri* and *L. wilcoxii*.

Donnellan and Mahony made a further discovery. Some of the hybrids were between *L. lesueri* and the Booroolong Frog *L. booroolongensis*. The Booroolong Frog is a rough skinned creek-dwelling frog that is a similar shape and size as *L. lesueuri* but lacks the thigh markings. The genetic study indicates that the Booroolong Frog another close relative of Lesueurs frogs that has moved into more western areas but still co-occurs in some areas with Lesueurs Frogs. The Booroolong Frog probably should be considered the fourth cousin in the Lesueur extended family.

Complex hybridisation is known to occur with other closely related frogs in Australia. Cross-breeding is still going on because many of our frogs are in a rapid speciation cycle. Many frog populations are separating and beginning to genetically diverge from each other. They are doing this in response to the present warm (inter-glacial) phase that we are going through. Many people are surprised at how rapidly frogs are able to separate and begin the process of speciation; it is this ability that has allowed frogs to rebound several times throughout fossil history when other animals have become extinct.

Arthur White Reference:

Donnellan, S.C., and M. Mahony. 2004. Allozyme, chromosomal and morphological variability in the *Litoria lesueuri* species group (Anura:Hylidae), including description of a new species. Australian Journal of Zoology 52(1):1-28.





Large crowds attend the regular OSRAM / FATS Group education and publicity days at Centennial Park

The Australian September 2004



Australian Government

Department of the Environment and Heritage

CALL FOR PUBLIC COMMENT

Draft Threat Abatement Plan for infection of amphibians with chytrid fungus resulting in chytridiomycosis

Australia's native amphibians are threatened by a pathogenic fungus, *Batrachochytrium dendrobatidis*, known as the amphibian chytrid fungus, which causes the infection known as chytridiomycosis. Consequently it has been listed as a key threatening process under the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*.

The Department of the Environment and Heritage is calling for public comment from interested groups and individuals on a *Draft Threat Abatement Plan for infection of amphibians with chytrid fungus resulting in chytridiomycosis*. The draft threat abatement plan describes the research, management and other actions necessary to protect native species and ecological communities from the chytrid fungus.

The three-month public comment period will close on **Wednesday 1 December 2004**.

An electronic copy of the draft threat abatement plan may be viewed on the internet at:

<http://www.deh.gov.au/biodiversity/invasive/notices/index.html>
or phone 1800 803 772.

Written comments on the plan should be sent to: The Director, Threatened Species and Threat Abatement Section, the Department of the Environment and Heritage, GPO Box 787, CANBERRA ACT 2601 or email: threats@deh.gov.au

www.C020501



CENTENNIAL
parklands

centennial park
moore park
queens park

november

7 Sunday CARING FOR URBAN WILDLIFE

Join Rangers and experienced wildlife carers from WIRES Eastern Branch in this five-hour interactive session about the care of urban wildlife. Discover the best techniques for caring for and handling injured animals, learn how to attract wildlife to your garden and find out how to prevent native species from becoming pests. The workshop will also include a habitat walk and a visit to the Frog Mobile. For adults. 10 am – 3 pm. \$38.50 per person. Includes lunch. Meet Administration Building, behind the Centennial Parklands Café. Bookings essential (02) 9339 6699.



OSRAM
 SEE THE WORLD IN A NEW LIGHT
 ENVIRONMENTALLY FRIENDLY LIGHTING
www.osram.com.au



James Jeffrey finds travel-friendly ways of saving the world

EVER found yourself on holiday, gazing at a bird or wandering through a landscape so weepingly beautiful that you've caught yourself thinking, "I'd like to do my bit to protect this?"

Perhaps you wanted to help stop rare frog species dropping off the twig? Or join the effort to prevent the coastal ecology of the Bahamas from being further bugged up?

Wring your hands no more. With increasing numbers of operators offering trips that have a conservation bent, there are opportunities aplenty to put your money — and yourself — where your mouth is.

Earthwatch Australia — the Melbourne-based chapter of Earthwatch Institute International — has an almost bewilderingly broad spectrum of activities. These range from the local — working with vanishing frog species, bilbies, koalas and northern Australian rainforests, to name but a few — to the global, such as chimpanzees, the manatees (dugongs) of Belize and, memorably, the bogs of Belarus.

A non-profit organisation that sponsors conservation research projects by giving paying volunteers the chance to get on site with scientists, Earthwatch says its expeditions are not tours but, rather, parts of vital, continuing research projects. Earthwatch Australia's executive director Jane

work that can be difficult to get money for," she says, adding that while scientists are often able to get funding for the leading focus of their work, big holes remain.

"Getting out into the field to collect actual data is expensive. Earthwatch helps get them out there to do field research."

One of Earthwatch's coming events is its series of Australia's Vanishing Frogs weekend projects. Amphibian aficionados go camping in the rainforest of the NSW Border Ranges and Watagan Mountains with a conservation biologist who's trying to get to the bottom of why local frogs are dying out at such an alarming rate.

It's not all catching, sexing and recording frogs, though — other hardships have to be endured. Rivers have to be swum in, meals cooked over open fires, bracing showers taken and wildlife spotted by torchlight.

Gilmour says one of the domestic projects that's getting a thumbs-up from serial international volunteers takes place in the Kimberley region of northern Western Australia, where scientists and Aboriginal rangers are working in tandem to learn more about freshwater tortoise species in the area.

As with even common reptile species, the known with these animals is easily eclipsed by the

IT'S NOT ALL CATCHING, SEXING AND RECORDING FROGS, THOUGH — OTHER HARDSHIPS HAVE TO BE ENDURED. RIVERS HAVE TO BE SWUM IN, MEALS COOKED OVER OPEN FIRES, BRACING SHOWERS TAKEN AND WILDLIFE SPOTTED BY TORCHLIGHT

Gilmour says the trips have two significant values — multiplying the amount of data scientists are able to collect, thereby giving researchers more material to work with in their efforts to find solutions, and giving non-scientists the trip of a lifetime and a sense of involvement.

"People come back saying they've learned so much working with inspirational leaders and scientists, and meeting people from all over the world," says Gilmour.

There are people in Australia who have already clocked up 10 or more Earthwatch missions, while in the US, where Earthwatch has been operating for much longer, there are already hardcore veterans of 30-40 tours of ecological duty. And, says Gilmour, every one of them is contributing valuable money to science.

"A lot of the research we support is long-term

unknown. They also happen to inhabit one of the most stunning parts of the continent.

"It's amazing country and you get to go to places you otherwise wouldn't be able to," she says.

Earthwatch volunteers tend to organise their own transport to and from rendezvous points. The size of the contribution they make to the projects varies from \$275 per adult (\$180 for children) for the Vanishing Frogs weekend to \$3995 for the fortnight-long Kimberley turtle odyssey.

Many of the international projects — including those Belarusian bogs — fall between \$2000 and \$3000. This covers food, accommodation, on-site travel and the various costs of field research, such as permits and equipment — as well as the scientific research. Expedition addicts qualify for discounts.

STA Travel also offers conservation trips for

VALUE-PLUS ADVENTURE

turtle lovers as part of the Live & Learn range it has had on its menu for the past two years. Participants travel to Costa Rica to work alongside staff from the Costa Rican environment ministry to protect rare sea turtles from poachers.

Other trips include stream preservation and restoration in Alaska, reforestation and fauna research with a volcanic backdrop at western Ecuador's Bilsa biological station, and animal care at a wildlife sanctuary in the Bolivian town of Santa Cruz.

All the projects are four weeks long — but extendable — with costs ranging from \$1740 for the Alaskan project to \$2495 for the Bolivian.

Travellers also have the option of a conservation component as part of a larger tour. Gecko's is one outfit offering such an option on a few of its tours in September each year, when Clean Up the World Day falls.

Travellers can give a day of their time to pitch in with the locals and tidy up around Siem Reap in Cambodia, Mt Sinai in Egypt and Mt Kilimanjaro in Tanzania.

"We don't make any money on it, it's more part of our responsible tourism initiative," says Gecko's manager Steve Wroe.

Although the option has existed since 2001, it has been slow to gather steam.

"It's been reasonably popular, but I honestly thought it would be more popular than it is," says Wroe. "But it's a good initiative — people come away feeling good."

- www.earthwatch.org/australia
- www.statravel.com.au/inspiration/
- www.geckosadventures.com

FROGMOBILE

WOWS FESTIVAL OF WILDFLOWERS

"Nature Spaces – Endangered Places"

The OSRAM / FATS Group Frogmobile took its own Nature Spaces to the spring festival at the Ku-Ring-Gai Wildflower Gardens in St Ives on the last weekend in August.

FATS have provided a display each year for ten years but this time they "wowed" everyone with the Frogmobile. Locals and visitors from as far afield as Darwin were treated to frogs from around Australia.

The stars of the show were Alistair's *Three Spots* and *Petunia* – Magnificent Tree Frogs occurring near Kununurra and Karen and Arthur's *Mr Livermore*, a Green Tree Frog who is on an exercise regime of being photographed with small children. Digital photos were taken and printed at the FM and sold to very impressed parents. Marion used her skills behind the camera to capture just the most delightful expressions on the faces of so many 2 and 3 year olds. They will be sold on frogs for life! Punia, Alistair, David and Wendy wrangled the frogs.

Lothar fielded many questions from the other exhibitors and visitors who were so amazed by the FM as an exhibit and what it could do. Val Close, the Festival organiser, was very impressed by the FATS display and hopes we continue to be part of the festival.

Thanks also to Robert and Meryn and to David Urquart for their generous donations.

Frank and family were spotted taking part in the mystery picture by answering questions at each display to gain a piece of the big picture. This was a local "Endangered Place" – the Dalrymple-Hay Nature Reserve of Blue Gum High Forest.

The Festival is always a good place to learn the ropes of helping on an exhibit day. Don't miss out on the fun, volunteer to help at the next exhibit day in Centennial Park. See Lothar for details. **Wendy Grimm**

BENEFITS IN BEING FRIENDLY TO FROGS

Tasmanian farmers learned the importance of creating frog-friendly farms at a frog-awareness event in the Derwent Valley yesterday. More than 70 farmers and landowners from as far away as Bicheno and the Huon Valley travelled to Hamilton to attend the World Wildlife Fund Frogs on Farms Field Day.

They were keen to find out how they could create safe havens for frogs, ensure long-term survival of a dying species and reap the benefits frogs can provide for farms.

A recent WWF survey discovered green and gold frog (*Litoria raniformis*) tadpoles in dams around Tasmania and realised farmers could help save the frogs by taking a few simple measures. WWF Tasmanian frogs coordinator Karyl Michaels said while wetlands across Australia were declining due to urban development,

expanding agriculture and drought, farmers could help by simply being aware of the frogs and planting some native vegetation around dams.

"Farm dams are an important part of our rural landscape, with over 60 per cent of Australia's land classed as agricultural. Frogs also provided benefits to farmers as they were "the ultimate in biological pest control". Frogs absorb oxygen, water and toxins through their skin and are susceptible to pollution, so monitoring frog practices can help farmers assess the environmental impacts of their management practices.

With compliments Steve Weir

http://www.themercury.news.com.au/common/story_page/0,5936,10748235%5E3462,00.html STATE NEWS

LAST MEETING 6th AUGUST 2004

Alistair MacDougall, our newly elected Chair, welcomed our diverse and enthusiastic members and visitors, all of whom have a common interest in nature.

At the end of the AGM Marion Anstis announced that one of our long term FATS members and an ex-committee member, had completed her Red-crowned Toadlet PH D. **Congratulations Karen Thumm.** Karen's thesis was a study of organisms that have different life strategies depending on environmental changes and how species hedge their bets.

Our main speaker was Elvira Lanham. She spoke about the herpetological surveys of the national battle fields of Virginia and their ponds (dams) and second growth forests. The salamander capital of the world – with 7 families and 75 different species! Of the 100 researchers there, she was the only Aussie. Elvira presented a diverse number of fascinating slides including newts, toads, frogs, snakes, turtles, and salamanders. I shall not repeat the American recipe for cooking some of the above! Slides included the Eastern Narrow-mouthed Frog. We thank Elvira for an extraordinary presentation and her responses to the inundation of questions after her talk.

Rio Tinto and WWF sponsored the third National Frog Congress and development of a frog network. Lothar spoke about the plans for a frog network that will provide general information, identify research findings, provide a web based forum for news, data bases, activities and education. Lothar presented a film about the conference and speakers.

Arthur White spoke about Lesureurs Tree Frog (see page 5). Grant Webster won the tadpole guessing competition. Lou Petho presented a selection of interesting slides. Arthur ran our auction including the fierce bidding for the inflatable frog, finally won by Lothar for the Osram / FATS Group Frogmobile. Congratulations Rainer Enke, winner of the guessing competition.

Thank you to all the presenters and those who contributed to the newsletter. **MW**

EXTRACTS FROM HERPDIGEST



Local Man Invents Frog Hotel

WCJB (Gainesville, Florida) 8/30/04 Stanley DeCell, an Ocala resident, had a problem with tree frogs getting into his hoses and cleaning tubes by his swimming pool. He went on a mission to find these little green creatures a home. After creating a tiny roof, a sliding door, some holes and a few pieces of piping, a prototype emerged. Stanley found the frogs preferred his "hotels" to the pool equipment after some testing. The first time anyone saw this creation was at the Master Gardeners Show back in March. The orders started pouring in. Once a hobby, these frog hotels have become an enterprise with logos, a website, manufacturers and a patent in the works. For more information, log on to www.treefroghotel.net.



Lovelorn Frogs Hop Into The Gene Pool

The Star Online, 9/19/04 Spanish zoologists have discovered that male frogs who are losers in love get their revenge by spreading their sperm over eggs that have been left by a pair of romancing amphibians. The sneaky manoeuvre is dubbed "clutch piracy" by the researchers, who say it sheds intriguing light on the principle of mate selection among frogs and helps

explain the creatures' wide genetic diversity.... observations made by University of Vigo frog-watcher David Vieities show that, once the blissful pair are out of sight, a pirate often moves in, shedding his own sperm over the egg clutch. The findings weaken the Darwinian idea of mate selection - that the female chooses a single male with the best genetic selection and mates only with him in order to reproduce. In this case, the big winner is the pirate frog, who gets the chance of fertilising some eggs even though he lost out in the mating competition. But the female, too, is also a beneficiary, because her eggs get a better chance of being fertilised, the researchers say. The study is published in *Nature*, the British weekly scientific journal.

"Bertha" photo from Matt McCloskey



Tadpole Explosion Prequel To Invasion Of The Frogs Caused by Hurricanes.

By Christine Girardin, September 19, 2004 Deland, FL-- Sprouting partly formed appendages and roiling in spring-like boils anywhere there's standing water, they look like tiny escapees from a B-grade horror flick. But the boom in tadpoles is only a prequel to the invasion of the frogs, a live-action spectacle coming soon to back yards throughout Florida, including Volusia and Flagler counties.Low-lying areas filled with rains from recent hurricanes make the perfect breeding ground for frogs in search of predator-free zones where they can lay eggs, Tadpoles eat detritus and algae in water, frogs eat all kinds of bugs -- including mosquitoes -- and the frogs in turn become food for raccoons, snakes and birds.

Amphibian Species of the World:

An Online Reference, Version 3 is now live:
<http://research.amnh.org/herpetology/amphibia/index.php>

New features include Boolean searches, a new database structure, and updates to 22 August 2004.

HerpDigest Inc. is a non-profit, 501 (c) (3), corporation that publishes the free, electronic weekly newsletter called HerpDigest, and runs the website under the URL www.herpdigest.org.

G & G BELL FROG DOCUMENTARY

Lou Petho has finally a contract to finish the documentary on the Green and Golden Bell Frog in and around the Sydney area. He is cutting it at the moment and it should go to air at the end of the year on ABC's 'Richard Morecroft Goes Wild'. He has admitted that, yes, some frogs have died during the make of this film – of old age. This project started in 1998 and has lots of material, most of it will not make it into the 26 minute film. The plan is to produce a DVD that will incorporate as much of what's been shot as possible and be a comprehensive look at the world of the Green and Golden Bell Frog as it is today. To make sure he gets the full picture he is asking people to email him with issues and stories they think should be included. Below is a list of the chapter titles to get the ball rolling:-

The frog's history

How it got on the endangered list and who this all works

The frog's life cycle

The research projects being done

Sites being rehabilitated and created

What is killing them

The captive breeding program

Contact Lou Petho Stoney Creek Productions

Email: stoneycreek_prod@yahoo.com.au

Phone (Aust) +61 2 9954 4925

Mobile (Aust): 0414 994 991

GLOBAL WARMING WINNERS & LOSERS

The impact of climate change on Australian ecosystems' This is the 2nd Annual Bird Week Lecture – presented by the Cumberland Bird Observers Club & The Sydney Olympic Park Authority.

A lecture by **Dr. Lesley Hughes**, Snr Lecturer in Ecology, Dept. of Biological Sciences, Macquarie University, followed by an open forum with an expert panel :

Professor Graeme Pearman AM, FAA, BSc(Hon), PhD Chief of the CSIRO Division of Atmospheric Research 1992-2002 and now Professor of Sustainability Science at Monash University

Roger Good BA, Litt B, MSc, HAD Senior Project Manager (Mountain Catchments) with the NSW Dept. of Environment & Conservation, & is a partner in the Global Observation Research Initiative in Alpine Environments (GLORIA) project investigating world alpine areas for impacts of climate change.

Dr. Neil Saintilan BSc(Hon), PhD. Director, Centre for Environmental Restoration & Stewardship, Australian Catholic University, also Honorary Fellow of the University of Wollongong.

John Hudson BSc(Hon), MSc. Manager Information Services & Programmes, Sydney Olympic Park Authority

(SOPA), responsible for the SOPA Databank. Also a director of Quaternary Resources P/L, a geological-environmental consultancy.

Edwina Laginestra BSc, MSc. Manager, Research Programs in Sydney Olympic Park (SOP), responsible for selection, management & review of scientific research programs to determine the environmental condition of SOP & make recommendations for long-term site management.

Date : Gate opens at 1-00p.m. Saturday 23rd October 2004. **Venue :** Building 22, Newington Armory, Sydney Olympic Park. (Entry via Jamieson St off Holker St). **Cost :** \$25-00 (\$15-00 Concessions). Credit Card facilities available. Afternoon tea provided. Free Parking at Blaxland Common car park. Bookings essential, ph. 9714-7888.

FIELD TRIPS

Wybong Camp-out. Oct. 1-4.

Wybong is located in the Upper Hunter Valley approx. 20 mins from Muswellbrook. Camping will be on private property adjoining the owner's residence. This enormous property ('Envirofund' site) has a substantial mix of habitat types & has already recorded koalas, brush-tailed wallabies & a host of unusual fauna.

There are very basic bush showers & rent-a-loo facilities available, but members will need to supply drinking water. There will be BBQ areas & an 'outdoor' kitchen provided -bring your own plates, cutlery & kitchen implements. The Anvil Hill group will kindly supply a BBQ lunch on Saturday & Sunday. Following lunch there will be a guest speaker discussing aspects of the Anvil Hill flora & fauna. There is a range of caravan & motel accommodation in Denman village (5mins) or at Muswellbrook (20mins), but this will need to be booked privately - please, however, let me know if you are coming (I can assist with some local accommodation details).

In nearby Hunter Valley areas there are a number of good wineries (Cruikshank, Yarraman Road & Rosemount are nearby). We hope to look in on the work of a number of specialist groups & may also play host to some of their members as we look for frogs.

Our leader this weekend is Danny Wotherspoon. Danny is an accomplished herpetologist & has been involved with this project for some time. We don't know what species to expect, but it should prove an interesting weekend ! Bookings essential. Phone Field Trips Co-ordinator (ph. 9681-5308) for bookings, location details & all other enquiries. Many thanks to our northern region advisor, Steve Weir, for 'stitching' this one together. We have also heard whispers that Steve has a few more locations & events up his sleeve ! Watch this space ! **Robert Wall**

SMITHS LAKE CA. **Sold out** OCT. 15-17.

Due to the social arrangements we have with venue management, we will now require all field-trip participants to pay IN FULL, IN ADVANCE. Bookings will be accepted only when accompanied with payment, and in order of receipt (i.e. first in, first served). This fee will be **NON-REFUNDABLE** except in cases where money is received after the field-trip is fully booked, in which case all monies will be returned. Once accepted, cancellation of the booking will result in **forfeiture of payment.** This booking procedure will also apply to all other venues that impose a non-refundable accommodation charge (e.g. Jervis Bay, Barren Grounds). We trust that all members will understand that this is in the best interests of our society. When sending cheques etc. please ensure you include names, numbers & contact details. Direct cheques etc. to the Treasurer. For all enquiries in this fieldtrip please contact Arthur or Karla (ph. 9599-1161). **RW**

FROGWEEK IS COMING!

Frogweek is always the first week in November. This time FATS is celebrating it in Centennial Park (yes, by the Duck Pond, our usual place) on Sunday, 7th November, from 11 a.m. till 4 p.m. And the Osrarn/FATS Group Frogmobile will be there as well. All FATS members are invited. Bring a friend, by all means if need be. At our October meeting we can kick a few ideas around for our little party. So please bring your ideas to the meeting with you. **L.V.**

FASCINATING FROG FINDING BY ISLAND VOLUNTEER

ROTTNEST Island volunteer and frog researcher Courtney Wheatley doesn't mind spending hours in the water in the chill of winter nights studying the tailless amphibians – it's all in the name of science. He has discovered that frogs on the Island have changed their growth rates to achieve metamorphosis before the water body dries up or salinity levels become too great for survival.

"I began the frog research project because I observed that likely frog habitats appeared to be degraded through the high stocking density of Quokkas around these low lying, natural seepage areas. I approached the RIA with a proposal to monitor and record significant events and habits of any frog populations that I might find. In order to gain an RIA Research Permit I had to first gain a CALM permit to observe and handle frogs within specific guidelines."

There are three species of frogs on the Island - *Litoria moorei* – Western Green Tree frog (motorbike frog), *Heleioporus eyrei* – Moaning frog, and *Crinia insignifera* – Sandplain Froglet (squelching froglet) - all of which are found on the mainland.

Mr Wheatley said all the fresh water habitats in which frogs were found on the Island were ephemeral and hence particularly dependent upon total rainfall, spread or consistency of rainfall, water table levels and soil type. Salinity levels could also impact negatively on some sites.

He said these conditions imposed great survival pressures on fertilised eggs and tadpoles. Fertilised eggs of the burrowing frog can perish before being exposed to sufficient moisture for the hatching of tadpoles and active tadpoles can perish as water bodies dry up due to retreating water table levels. The burrowing frog tadpoles also require special rain events coupled with high water table levels for the 'in-burrow' hatchlings to swim and muscle their way from burrow opening to the water body. The ultimate challenge for the tadpole is to achieve metamorphosis before the water body dries up or salinity levels become too great for survival. The tadpoles on Rottnest Island appear to have altered their growth rates quite dramatically from those of the same species on the mainland (the Island has been separated from the mainland for approximately 6,500 years). Mr Wheatley said the relative dry conditions on the Island and the porosity of the subsoil and in cases, salinity levels, associated with most of the frog breeding habitats combined to create a fragile breeding environment.

Despite this situation, observations indicate at present there are substantial numbers of frogs on the Island, particularly the Sandplain Froglet and the Moaning frog. Observations seem to suggest the high numbers of Quokkas which feed at the breeding sites and the resultant dung accumulation are not detrimental to the breeding of frogs, although study of the water nutrient quality and algae content of some sites may provide a different conclusion." Penni Fletcher-Hughes at RIA WA and Louise Allan-Johnson louisej@quikwa.com



Courtney Wheatley Frogging

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).

October 1 - 4. Wybyong (Upper Hunter Valley). Leader : Danny Wotherspoon.

The Anvil Hill Project Watch is a community-based group concerned about the impact of an open-cut mine proposal. They have asked a range of professional & volunteer groups to conduct a wildlife & habitat inventory of the area. This project has active support from NPWS & the Australian Museum. It is hoped that a Voluntary Conservation Agreement will eventually be secured. This weekend we will be joined by specialist groups surveying the local bats, snakes, birds & orchids. Due to its strategic location, this area frequently records species from the Sydney Basin, western slopes, & northern bio-regions. Contact Field-Trips Co-ordinator for further details.

October 15-17. Smiths Lake. Leaders : Arthur & Karen White.

This fieldtrip is fully booked. We unfortunately are unable to accept any further bookings.

November 20. 9-00 a.m. Royal National Park. Leader : Ken Griffiths.

Meet at the Waterfall Railway Station carpark.

Frogs do not live in isolation, they are part of a broader ecological community. Today, we will look at some of the wildlife that share frog habitat. We will look at the notion of predators, competitors & prey. Ken, author of 'Frogs & Reptiles Of The Sydney Region' & 'Nature Photography' will provide us with an insight into some of the essential elements of a healthy ecosystem. We have given Ken permission to search out anything he chooses today & he relishes assignments like this! For the photographers amongst us, Ken will also be happy to provide tips on photographing wildlife, so bring your cameras! Please note the morning start.

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

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

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

Our specialist research field trips with Graham Pyke & The Australian Museum. Ideal for all students & serious enthusiasts.

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

FROGWATCH HELPLINE 0419 249 728

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Vacant	Editorial Panel		

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. **NO MEETINGS ARE HELD ON GOOD FRIDAY** so check 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 the next meeting.