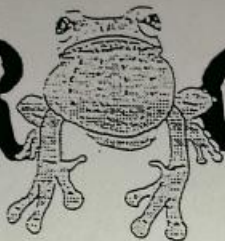


FROG CALL



NEWSLETTER No. 63
January 2003

THE FROG AND TADPOLE STUDY GROUP OF NSW INC
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Litoria phyllochroa Green Leaf Tree Frog Photographed by David Nelson

Next meeting 6.30 PM for a 7.30 PM start

FRIDAY 7th February
AUSTRALIAN MUSEUM,
WILLIAM ST ENTRANCE

*SPECIAL EVENT
FOR YOUR DIARY
FATS PICNIC IN CENTENNIAL PARK
Saturday 12th April 11am to 3pm
see next Frogcall for directions*



MEETING FORMAT for 7th February 2003

- | | |
|---------|--|
| 6.30 pm | A small number of frogs are ready to collect from the Frog Rescue Service. Please bring your FATS membership card, Amphibian Licence and See page seven. |
| 7.30 pm | Welcome and announcements |
| 8.00 pm | Main speaker: Ken Griffiths presenting photographic techniques and frog slides galore. |
| 8.45 pm | Lothar Voigt will talk to us about the National Frog Conference and Frogmobile.

David Nelson will report on the Oolong field trip. |
| 9.15 pm | 5 Favourite Slides (Please bring along any froggy slides that you would like to show) |
| 9.30 pm | Auction and drawing of door prize |
| 9.45 pm | Tea and Coffee |

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The Cairns Frog Hospital is becoming the frontline for frog disease. Many thanks to those who contributed to the fundraiser that sent a cheque for \$1,000 from FATS to Deborah Pergaloti, the hospital curator.

Our main speaker, Dion Hobcroft presented captive frog breeding programs and spoke of waiting for thunderstorms, playing frog call tapes to his charges, inbreeding, new and emerging diseases. Dozens of great frog slides had our visitors mesmerized. Photos included tadpoles, metamorphs, salamanders, Japanese Fire Newts, Giant River Toads and long fingered toads that looked like ET. Dion hopes that more good international field guides will become available. He described many animal such as the cannibalistic Fletcher's tadpole, the wide decline of the Red Crowned Toadlet due to urban run off and our endangered Coroborree frog at Brindabella. A flood of questions followed his interesting presentation. Many thanks Dion for a fascinating talk and slide show.

Lothar Voigt brought us up to date with the Frogmobile. Arthur White spoke about desert frogs. Matthew Kemplay-Hill presented excellent slides of *Litoria dentata*, *Perons*, *Fallax* and more, explaining about the equipment he used. High School student, David Nelson, continues to amaze us with abundant, wonderful, clear frog shots.

Congratulations to Simon Tompson, Robert Wall Alistar McDougal and John Butler for winning the guessing competition. Weird frog memorabilia for auction included frog shower caps, a frog in bed, frog light and bendy frogs for securing plants to wooden support stakes.

Many thanks to the presenters and enthusiastic visitors.
MW



Litoria lesnouri, Stony Creek Frog Photographed by David Nelson

NEARLY A MILLION HECTARES LOST TO SALT DAMAGE

About 2 million hectares of agricultural land in Australia is affected by salinity and nearly half of that is no longer productive, according to a report released yesterday.

In a survey of the country's farms, the Australian Bureau of Statistics found one in six was affected by salinity, which occurs when land clearing and the use of water for irrigation and other purposes causes underground salt to rise to the surface. Last month the Wentworth Group of scientists told the Federal Government salinity was one of Australia's biggest environmental problems. It called for an immediate end to broadscale land-clearing in order to provide "fundamental benefits to water quality, prevention of salinity, prevention of soil loss and conservation of biodiversity". The Federal Government has allocated \$1.4 billion to its National Action Plan for Salinity and Water Quality, which is shared between the states. (Extract)

By Stephanie Peatling, Environment Reporter SMH

I suffer from Taxonomy; it really is a pain
To split and lump among the dump implanted in my brain.
I cannot yet remember or I may not still have learned
Tomorrow's word or yesterday's, as round the facts are churned.

I hobnob with Taxonomists; I like the way they think.
I love the lucubrations and the fights with pen and ink.
To me it really matters whether names are right or wrong
Because we're planting gardens where the little guys belong.

I revel in Taxonomy; it is a wondrous fight:
Do we go with a consensus? Do we try to get it right?
As the butterflies keep vanishing, we have to work and worry
Just a-waiting for the scientists, who really must not hurry.

I grieve for the Taxonomists, for I know what they've missed
Spending their golden days inside and working on a list.
And just when they imagine that they're coming to an end,
" Please change that 'Hemiargus' to 'Cyclargus'," says their friend.

So when I talk to Santa, who has asked me to report
On some of our associates, the good and naughty sort,
I'll tell him you're all perfect, and have really proved your worth
In service to our Mother, the holy Lady Earth.

Anne Kilmer viceroyn@gate.net naturepotpourri@yahoo.com

**2ND NATIONAL CONFERENCE OF FROG GROUPS -NOTES
Tasmania**

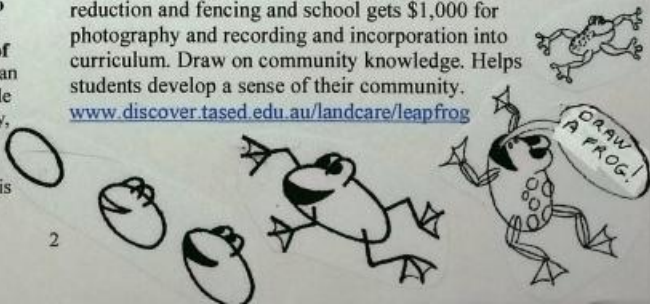
Jim Nelson volunteer associated with Central North Field Naturalists (membership 100). Frog tape- Frogs of Tasmania, Natural History and Calls. Quarterly newsletter Leapfrog. Excursions, surveys, school involvement; adult education but bring a child.

Paul Swiatkowski, (CNFN) described the ecological niche of *Litoria burrowsae* in Tasmania. It likes high rainfall areas with acidic water. Monitoring suggests that it is not threatened at this stage but action should be taken before it is too late.

Karyl Michaels employed WWF/Rio Tinto Frogs! Program-Tasmania provides a state-wide network, contact database, newsletter, community events, waterproof fieldguide to Tasmanian frogs, Frogseeker kit (record calls and send data back), facts sheets. Survey for *Limnodynastes peronii* as it and *Litoria raniformis* are threatened in Tasmania.

Nel Smit Tasmanian Leapfrog Program, \$40,000 National Heritage Trust project by Central North Field Naturalists and Dept. Education with 20 farmers and 25 schools. Suggest alternatives to draining swamps on farms. Schools develop a management plan. Farmer gets \$2,000 for weed reduction and fencing and school gets \$1,000 for photography and recording and incorporation into curriculum. Draw on community knowledge. Helps students develop a sense of their community.

www.discover.tased.edu.au/landcare/leapfrog



NSW

Stan Orchard based in Sydney, works for World Wide Fund for Nature directing the WWF/Rio Tinto Frogs! Program with a budget of \$1.4M. www.frogs.wwf.org.au Committees include the Scientific Advisory Panel and the Education Working Group. Funding is provided for projects such as "Endangered Frogs in the Wet Tropics" (5 papers written), Cane Toad Control/Eradication/Environmental Education (for Aboriginal communities, especially in Arnhem land), Northern Australian Frogs Database System, Remote Sensing of Amphibian Populations, Tadpoles of South-eastern Australia and various frog disease projects. This is the last year of the Rio Tinto program.

Francesca Andreoni, NSW co-ordinator for WWF Threatened Species Network, advocated getting frogs on the agenda by membership of a frog group, keeping contact with other environmentally aware groups, letters to newspaper and politicians. Award politicians for good decisions.

Robert Browne, volunteer from Friends of the Hunter Bell Frogs. Lobby group concerned about habitat destruction on Kooragang Island and other local sites for G&G Bellfrogs. Advocate decisions and actions independent of government.

Wendy Grimm, volunteer from Frog and Tadpole Study Group of NSW (FATS) (540 members) conservation, advocacy for frogs, education and service to public re frogs, exhibits, public displays, radio and TV interviews, 6 meetings per year, field trips, social events, 6 newsletters per year, Frog Facts, scientific publications, posters, frog rescue service, Frogwatch Helpline, website www.fats.org.au, email.

Lothar Voigt, volunteer from FATS, discussed Frogwatch in Streamwatch for NSW schools, Frogmobile updates.

Marion Anstis, volunteer with FATS and member of Education Working Group, set up a microscope to projected images of preserved tadpoles. Their characteristics were used to key out species using the tadpole key from her book, Tadpoles of South-eastern Australia.

Steve Sass, volunteer Riverina Frog and Reptile Society (80 members) Keeping, guest speakers, environmental issues, local newspaper features, monthly newsletter, website, research and fieldwork-Southern Bellfrog.

Jeremy Morante NSW North Coast Frog Group (did not attend)

Brad Macpherson, volunteer Society for Amphibians and Reptiles (SOFAR) (100 members) Monthly meetings Shortland Wetlands Centre, rescue service; school, scouts and general public lectures; quarterly newsletter, monthly field trips, camping trips, poster and greeting cards, reptile food.

Robert Wood, volunteer with SOFAR discussed fund raising initiatives and sponsorships and the problems of insurance and public liability. There is lack of knowledge as to who is covered by the AAHS insurance policy.

Sara Broomhall, University of Sydney, stressed the current lack of knowledge of the effects on frogs of chemicals and their metabolites, especially in the various

environments in Australia. Damage can occur at many points in the life cycle. She advocates reducing the use of chemicals and substituting mechanical methods. "Think frogkind; be frogkind". Booklet will be available soon.

Queensland

Helen Frost volunteer from Frog Declines Reversal Project (Membership about 50)- Cairns Frog Hospital services area from Mission Beach to Cape York and west to the Atherton Tablelands. Periodic newsletter and membership kit containing 8 facts sheets.

Helen also spoke about a new frog disease that was worrying Deborah Pergolotti at the Hospital and described the symptoms. Financial support needed to keep hospital going. They were extremely grateful for FATS donation of \$1,000.

Jenny Holdway volunteer Queensland Frog Society (350 members) Education, fieldtrips, workshops, displays; school, uni and garden club talks; surveys for Brisbane councils and NP&W, community action (spoon drains). Jenny also spoke about setting up a Public Trust fund (\$3,400) that is classified as a charity. Donations have come from all states. Discussion whether the funds are best spent on research or education. www.qldfrog.asn.au

Vickii Nicholls volunteer RANA Frog Group Gold Coast area. Education, public displays, pond production, monthly meetings with guest speakers, "Focus on Frogs" in November, website and posters.

Mike Anthony volunteer Tablelands Frog Group (65 members) minimal fieldwork, public awareness, monthly meetings, newsletter (The Croaker), Youngerborough frog stall monthly, school talks, help NP&W, help David Stewart with frog calls, website.

Trudy Wilcox volunteer Townsville Frog Group (100 members) School education and info packs, school ponds, linked to Council website, Council prints quarterly newsletter, some frog rescue. Frog Ponds in Schools program-aims education, conservation, appreciation. Costs donated by businesses, councils insist on fish in ponds (use pacific blue eye, white clouds).



Northern Territory

Graeme Sawyer volunteer from Frogwatch NT informal group includes Kimberley area. Raises frog issues across top end of Australia and supports other groups that run programs in N.T. Bridges science and public. Runs tours for N.P&W staff. Junior ranger program. New species found. Website, www.frogwatch.org.au Supporting frog groups through on line information. Frog database on CD, which can be loaded onto hard disk and modified for other locations then reloaded to another CD.

Jeanne Young, in Frogwatch NT, is a PhD student, helps with education and displays and encourages people to know their local frog calls. Hopes this will enable locals to know when the cane toad arrives in their area. Howard River Toadlet was recently discovered although it occurs only 40km from Darwin.



Western Australia

Anthea Paine employed in Frogwatch WA at WA Museum. Funding from Alcoa (7,500 members) Free membership. Newsletters, website, posters, book (Frog Friendly Gardens) CD-Calls of the SW of WA, teacher resource kit, community events and workshops (catchment groups, nurseries). Holiday program at museum, help a scientist, School Education Program K-10. Links to Greening Australia WA. Licensing changes for frog keeping in WA.

www.museum.wa.gov.au/frogwatch

Victoria

Sue Samphier Victorian Frog Group (350 members) Conservation and education, 3 meetings per year at Zoo, 1 fieldtrip per year, trivia nights, Lost Frog program, 3 publications (In The Spotlight), website.

www.frogs.org.au The Amphibian Research Centre provides tadpoles for raising and returning to the source. State laws provide a \$1,000 fine/6m jail for removing wildlife from the wild or destroying habitat.

Raelene Hobbs from VFG spoke about using a frog calendar to support Project Corroboree.

Ainsley Gallagher from Melbourne Zoo described Corroboree frogs and the involvement of selected school groups at the zoo. Monitoring of Kosciusko populations: only 2 sites with 10 calling males.

Graeme Gillespie, working at Arthur Rylah Institute for Environmental Research, described implementation of an ADAPTIVE management plan for two threatened species in Victoria. *Litoria spenceri* is found in eastern Victoria.

There is now a good understanding of the biology, ecology and population dynamics of this species. The key threatening processes have been defined and aggressive conservation management of forests, catchment, recreation, mining and predators has been put in place. Successful captive breeding has allowed reintroduction of *L. spenceri* into the managed areas.

Philoria frosti (Baw Baw Frog) has a very restricted distribution at Mt Baw Baw and much time has been spent surveying the gullies by listening for the frog's call during the breeding season. Its distribution and pattern of decline have been recorded and it is no longer found in the Alpine zone. Key threats are still being evaluated and the most vulnerable stage of its life cycle being determined. The frog is a long-lived ground dweller, which lays its eggs in moist tunnels, and metamorphosis occurs within the egg capsule through to the frog stage. Logging is seen as a current threat. Barriers are being constructed to exclude trout from the habitat and timber harvesting is being managed.

These frogs are seen as flagship species. Their study leads to advances in understanding of ecology and can be used to help other frogs.

South Australia

Steve Walker employed by SA EPA Frog Census. Community monitoring program. Kit of blank tape, post pak and data sheet to record 5 minutes of calls during Frog Week (Sept). Steve analyses all tapes and sender and local council get feedback of species and information



sheet. Covers 760 groups at 1182 sites all in same week. Results show species stable over 1994-2001. Info used by local councils, catchment boards, State of the Environment Reports, Unis, schools and to map the distribution of each species.

www.environment.sa.gov.au/epa/frogcon

www.epa.sa.gov.au/frogcensus

Michael Tyler (ex Adelaide University) gave the Keynote address on Frogwatch and Pragmatic Conservation. He said the sudden disappearance of the Gastric Brooding Frog and *Taudactylus* in Queensland induced him to set up scheme for the public to monitor the distribution and numbers of frogs in South Australia through "Frogwatch". The secretions of frogs have been found to contain a wide range of agents against microbes including herpes simplex and golden staph. A mosquito-repelling characteristic is passed from plants via grasshoppers to frogs. Of special interest is a glue which was first isolated from the crucifix toad and can now be produced synthetically. It makes a very strong bond under extreme conditions and has possible uses in surgery. We should discouraged local councils from the indiscriminate use of herbicides around footpaths, drains and creeks as the wetting agent (surfactant) in the herbicide causes problems for tadpoles and frogs.

Harald Ehmann pointed out that SA is the driest state in the driest continent but has 28 species of frogs. Most are burrowers or ground dwellers and over half are at the extreme limit of their distribution. The largest variety of species occur in the Cooper basin the in the SE corner. Threatened species of frogs are the only ones protected by legislation in SA. Described many species and discussed physical adaptations and strategies that allow them to survive in difficult environments.

Brian McQuirk, Taddies for Kids, commercial venture by GreenLeap who provide a kit of 4 tadpoles to raise and then release the 4-legged tadpoles into your pond or local wetland. "An environmental and educational project for kids." Brian has found that it encourages people to clean up the location before releasing" their frogs". Aimed at K-7.

Jim Atwell, hoping to re-establish a frog group in SA. Ideas were offered as to location, field trips, benefit of strong leadership, sharing the load, affiliation with zoos or museums, captive breeding and keeping the group going. Unfortunately, Jim's death has just been reported by Michael Tyler. He had an inoperable heart condition.

Scientific Advisory Panel

Keith McDonald (Queensland Parks and Wildlife), Hal Cogger (ex Australian Museum), Dale Roberts (University of Western Australia), Graeme Gillespie (Arthur Rylah Institute) and Michael Mahony (University of Newcastle) Questions from the floor: What is the most urgent problem? Should conservation be State or National? Is there a role for a genetic repository of species?

The answers were varied, but the conservation of habitat and improved understanding of ecosystems were seen as very important. The extinction facing frogs is not mirrored in other species as yet and so frogs may represent a special case for a gene bank.

National Frog Advocacy Issues

Land clearing / habitat destruction

Education Funding Disease Invasive species

National Organisation Advantages

Greater freedom of action Frog conservation more sustainable Easier to delegate responsibilities Easier to get corporate funding Reduces duplication

A Working Party of volunteers, with one member from each state, has been asked to liaise with all the groups in their state. They need to have a mandate to vote on the structure of the national group by next conference. The conference broke up into state groups. Some states agreed on a representative at that time. The four NSW frog groups nominated Marion Anstis to be the NSW representative on the working party. Jeanne Young will represent NT and Jim Atwell was to represent SA. Jenny Holdway is probably the rep for Qld. Victoria and WA had no one who felt they could accept the interim position.

Reported by Wendy Grimm 25/1/03

FATS MAKES IT TO OOLONG

Who knows where Oolong is? We certainly didn't when FATS received an e-mail from Mr Gianni D'Addario late last year. The e-mail was a request for help from FATS. Gianni was a sheep farmer who owned a property near Dalton (about 12 km from Gunning) on the central southern slopes of New South Wales. He had been a sheep farmer all of his life but had a dream that one day, the tired piece of land that he owned could be returned to its original condition and become a haven for wildlife. To do this, he have divided the property into two sections, the smaller section to retain paddocks and grazing stock, the larger section to be rehabilitated as Oolong Sanctuary. Eventually he hoped to convert the remaining grazing paddocks to native bush and add this to the Sanctuary.

His dream sounded very admirable. But what did he want from FATS? Being a sheep farmer Gianni knew nothing about bush regeneration or the needs of native wildlife. To achieve the status of sanctuary, Oolong was going to need a lot of help. Major changes in vegetation and topography were needed to restore the site. To do this, Gianni was prepared to invest his own money, although he acknowledged that he did not have enough to complete the job. He would need financial assistance later on. But for now he needed information.

In order to convince government agencies and other contribution authorities of the merits of Oolong, Gianni needed to know what native animals and plants were on the property now and what plants and animals should be there. He established a Friends of Oolong Society and solicited the help of many people to get this information base. He also established a series of projects aimed at fulfilling the goal of cataloguing the flora and fauna. If you want to see the list of projects, visit the Oolong web site at www.pcug.org.au. The FATS survey of Oolong became Project No. 24.

Steve Weir responded to the call for help from Gianni,

and at relatively short notice gathered together enough people for a flying visit to Oolong. The survey team included David, Andrew and Fiorella Nelson, Robert Wall, Steve and Natasha Weir, John and Georgina Diamond, John, Peter and Luke Spradbro, Wendy and Phillip Grimm, Matthew Kemplay-Hill and Arthur White.

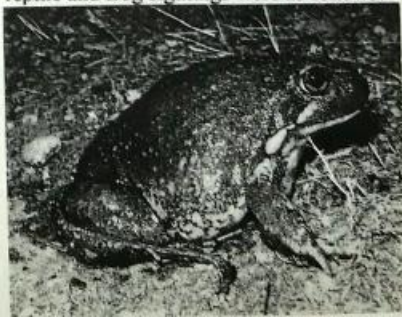
Early in the New Year the intrepid (decrepit?) survey team set forth. We were unsure of what to expect, despite the excellent directions to Oolong we were all taken back when we arrived. This can't be the place. It still had the Dalton Park sheep station signs up, and before us were bare expanses of overgrazed and barren fields. Apart from sheep, there were ostriches deer and angora goats in pens. We were later to discover that agisting these exotic animals was the main income of the farm. In front of us was not a land awaiting a rebirth but an exhausted landscape in the midst of a savage drought. Dead livestock littered the yards and many of the paddocks were deplete of any vegetation. Had we made a mistake in coming?

We pitched our tents and were given a quick tour of the property. Louie, our guide, had his own version of the transport. It was a beaten up Suzuki Sierra that had lost its roof and side doors, possibly had a clutch but no suspension and the motor sounded like it had small pebbles being ground to dust inside of it. Wendy Grimm took the first little ride but quickly forwent her seat to others- she valued her spine and kidneys.

The property consisted of a large area of grazing flats that had been subdivided into fenced paddocks. This was destitute of plant cover but did contain several dams with water. Oolong had a permanent spring and spring water was pumped to the many dams each day. It was not the lack of water that was killing the livestock, but the lack of food. On the eastern side of the grazing paddocks was a range of hills that were also part of the Sanctuary. These looked more inspiring as at least they had trees and ground cover. We were to discover that most of the vegetation was regrowth, the original trees had been felled during an active period of gold mining during the 1920's to 1930's. Mullock heaps, pits and deep shafts were scattered like termite holes throughout the hills. Still, there was wildlife in the hills.

Our time at Oolong was spent mostly walking from one part of the property to the other, looking for critters (birds, reptiles, frogs mammals, leeches – anything). Anything that was seen was caught (if possible), bagged, identified, photographed, poked, stared at, poked again and released. At night, were visited the various dams and the Oolong spring in search of frogs and other night animals.

Our reptile and frog sightings were as follows:



Limnodynastes dumerilii, Banjo Frog
Photographed by David Nelson

Frogs:

Beeping Toadlet *Crinia parinsignifera*
Widespread, present in almost all of the dams around the property.

Common Eastern Froglet *Crinia signifera*
Only detected in one dam on the western side of the ostrich paddock.

Eastern Banjo Frog *Limnodynastes dumerilii*
Foraging frogs were collected along the top section of Bushes Lane corridor (below the gate).

Spotted Grass Frog *Limnodynastes tasmaniensis*
Very common and widespread. present in almost all of the dams as well as along Oolong Creek water course.

Perons Tree Frog *Litoria peronii*
Quite common and present in the spring dam and other dams where there was still some fringing vegetation remaining.

Lesueurs Frog *Litoria lesueuri*
A single adult male was collected from Oolong Creek above the spring dam.

Reptiles:

Jacky Dragon *Amphibolurus muricatus*
Jack Dragons were collected in five locations, in a log pile on the southern side of Bushes Lane, near old mine working on the western side of the hill and on the southern side of the hill.

Beared Dragon *Pogona barbata*
Two Bearded Dragons were caught: one on the Bare Hill at the end of the mine track, and near the crest of the hill track on the southern side of the hill.

Mountain Dragon *Tympanocryptis diemensis*
A single Mountain Dragon was caught near a mine workings around on the western side of the hill.

Shingleback *Tiliqua rugosa*
A single shingleback was found near the track leading around the southern side of the hill.

Tree Skink *Egernia striolata*
Tree skinks were found in two locations: in timber rows on either side of Bushes Land before the entrance to the car park.

Grass Skink *Lampropholis guichenoti*
These skinks were only found on the lower hill leading up to the mine sites.

Copper-tailed Skink *Ctenotus taeniolatus*
Copper-tailed skinks were found in several locations across the eastern hill.

Rainbow Skink *Carlia tetradactyla*
Several rainbow skinks were found but were most common in the tussock grass in the Bushes Lane corridor.

Three-toed Skink *Saiphos equalis*

A single lizard was found under a log near the southern mine track.

Stone gecko *Diplodactylus vittatus*
A single gecko was found near the track junction on the western side of the hill.

Marbled gecko *Christinus marmorata*
A single gecko was found in a tank near the office.

Inornate Legless Lizard *Delma inornatus*
A single lizard was found under a log on the northern side of Oolong Creek above the spring.

Red-bellied Black Snake *Pseudechis porphyriacus*
A single snake was found near where Oolong Creek crosses Bush Lane.

Eastern Snake-necked Turtle *Chelodina longicollis*
Snake-necked turtles were common and present in most of the dams.

The large assortment of reptiles was a pleasant surprise. The stony hills were a haven for them. Most of all, the Rainbow Skinks were in full regalia; male skinks had large patches of shimmering blue green under the throats and bore orange and yellow stripes along their flanks. Many photographs were taken of the wildlife (and of people taking photographs of wildlife).

During the middle of each day, we had a quiet period. The heat of the day forced animals under cover and so we did the same. The early afternoon often resulted in wine or other fermented drinks being opened, chips and biscuits or other nibbles appearing from backpacks. It was a very social field trip that had a number of highlights.

Highlight 1: Fiorella Nelson overcame her apprehension of camping and came on this trip. Not only that but she roughed it. No comfortable mattresses or inflatable air beds for her. It was the bare ground. And she coped with it very well.

Highlight 2: Steve Weir brought 1 year old Natasha. Together they camped and joined in most of the activities of the survey. Everyone was impressed with Steve as a doting and attentive father; we were also impressed with Natasha who was unphased by the strange surroundings and strange people.

Highlight 3: Natasha Weir provided hours of entertainment to the assembled throng. On each walk, we all had to stop for many minutes to peer intently at a tiny pebble, an ant or leaf blowing in the wind. These were utterly fascinating to her and a revelation to all whom sat with her and also watched. Natasha also had her father's sense of humour. At one point a small beetle landed on her highchair during feeding time. The throng proclaimed it to be a beetle and she tried several time to say "beetle". Eventually the word came out and she repeated it over and over while pointing to the small insect. The throng thought Daddy would be so impressed when he realised what they had taught her to say. Daddy arrives back and what can she say ; "bbmmm giggle giggle". Daddy is sure that the throng have gone 6 loopy. As soon as Daddy walks away , out come the

pointing finger "beetle" "beetle". The throng were later restored in Daddy's eyes when Lisa Weir heard her blurt out "beetle" at home. "Where did she learn this Steve?" The penny drops. Such an angelic face conceals a devious mind.

Highlight 4: Luke Spradbrow demonstrated that he has the way with children and was able to communicate with Natasha in a way that no-one else could. It was amazing to see Natasha run (waddle) to Luke when she needed an older person to be in charge of her. Luke was prepared to console her and talk to her (in monkey talk) until she was ready for new adventures.

Highlight 5: John Spradbrow gets the Serious Camper award. An endless array of bits and pieces kept appearing from his trailer. It couldn't all have fitted in there but it did.

Highlight 6: Wendy Grimm gets the "Fishermans Prize" for seeing a really big lizard. Her sighting and subsequent report back to the group prompted a number of trips to a large fallen tree. Often people would be crouched behind stumps, armed with binoculars waiting the appearance of "Nessie". After many thwarted trips to the log, the lizard was sighted (and later caught by David Nelson and Steve Weir). Although it was a moderate sized Tree Skink, there had clearly been a dimension shift with the telling of the story.

Overall, the survey was a success despite the dry and hot conditions. Perhaps FATS will revisit Oolong after rain and see it in some greenery. Thanks to Steve Weir for organising the trip and Fiorella Nelson for feeding me.

Arthur White

A VOTE FOR SPIRULINA

Many FATS' members have reared tadpoles from time to time. Everyone has their own favourite diet for tadpoles and conventional practice has been to use to mushed (boiled) lettuce in conjunction with Fish Food flakes (such as those used to feed goldfish or other freshwater fish).

The Australian Reptile Park at Gosford has recently become involved in tadpole rearing and found that they had unexplained loss of tadpoles as they approached metamorphosis. The staff at the park had the tadpoles autopsied, fearing death due to disease, however no disease was found. Instead, abnormal levels of fish oils were found in the tadpole tissues, enough to cause growth abnormalities. These oils are present in commercial fish flakes.

The Reptile Park quickly changed the diet of the tadpoles to Spirulina. This is another fish flake but is designed for algae feeding freshwater fish and lacks many of the fish oils. Tadpole survivorship improved markedly using Spirulina and the park no longer uses other fish food supplements.

Thanks to Rachel Binski and Al Moochy at the Australian Reptile Park for this information. AW



A NEW SYSTEM FOR GETTING YOUR RESCUED FROGS AT FATS MEETING

We have not been happy with the way that rescued frogs are procured by people at the FATS meeting. Too often the same people are getting frogs while others miss out, too often people push in and queue jump.

In an attempt to make it fairer for people to get frogs, we are going to initiate a new system and trial it for few meetings. Between 6.30 and 7.00 pm anyone wanting a frog is to go to the front desk and get a ticket. You will also be asked what type of frog you want and what frogs you already hold. Your ticket number will be put in a queue. It will not be a "first in first served" arrangement. People who do not already have frogs will get first preference. From 7.00 pm till 7.30 the available frogs will be dispensed according to the modified ticket order.

If anyone has a suggestion for a better or fairer system for dispensing the frogs, please let us know.

Remember to bring your Amphibian Keepers Licence with you. No licence no frog. Arthur White

JANET WOODWORTH SCULPTOR & POTTER

Janet is a sculptor/potter living and working in the Blue Mountains of New South Wales. As an amateur herpetologist she has combined this interest with her artistic skill to produce a range of functional and decorative pottery based on the indigenous reptiles of Australia. She has exhibited at both Sydney and Blue Mountains venues, makes pottery mugs, bowls etc with frogs, lizards & snakes on them.
<http://www.acay.com.au/~natform/> MW

CANBERRA TRAGEDY

The fires in Canberra took out Will Osborne's place on Saturday afternoon and he's lost absolutely everything. 236 houses burnt down in Duffy in this horrific fire which raged in from the adjacent pine forests and nature parks. Most places had no chance it seems.

Will lost his professional libraries, field gear, boots, raincoats and 15 years of research and monitoring records for the alpine frog research and work.. His greatest loss however was his lovely old Vega banjos (made in Boston in the 1930's) which he loved playing.

On a positive note - and so very important - the family and dog all made it out without even a burn, just a lot of smoke in the lungs. Didn't get a chance to even grab his wallet - just had time to flee. The house is insured but not the contents.

If anyone you know has stuff by Will (I'm particularly thinking copies of photos he's taken, but other ideas welcome), it would be really good if we could give things back to him. While normal household items can be replaced, they'll keep feeling the sting of losing their personal sentimental things for some time. thanks, Mani
Mani Berghout Mani.Berghout@ea.gov.au

Conservationists are charging that a Bush administration proposal to clarify federal authority to protect isolated non-navigable wetlands is the "first step in an industry led effort to gut one of the nation's most important environmental laws, the 30-year old Clean Water Act" says ENS 1/10. Isolated wetlands, such as prairie potholes, provide vital habitat for migratory birds and other species. The administration has instructed the EPA and Army Corps to no longer require permits for the "pollution or destruction of wetlands that are located within a single state and are not associated with any navigable waterway." According to NRDC, "There is no legal or scientific justification for legalizing pollution in waterways that have been protected for three decades."

asalzberg@herpdigest.org

CALAVERAS JUMPING FROG CONTEST UP IN AIR

Angels Camp, Calif. - Mark Twain's 1865 tale of a frog-jumping contest draws more than 40,000 visitors each May to this historic mining community in the Sierra Nevada foothills. But those hoping to see the star of the story may be out of luck.

The once-common California red-legged frog — which many scientists believe to have been "The Celebrated Jumping Frog of Calaveras County" — is gone.

Environmentalists and scientists have seized on the famous frog to illustrate the dangers facing one of the "indicator species" they use to gauge the health of the Sierra region.....The red-legged frog was killed off in part because San Franciscans found its large legs quite tasty around the turn of last century.

Entrepreneurs imported even larger, but less delectable, bullfrogs from east of the Rockies to feed the frog leg craze. Descendants of the newcomers helped drive out the red-legged natives.

Today, scientists say competition, habitat loss, climate change, ultraviolet radiation and windblown pesticides are devastating not only the red-legged frog, but other frog species throughout the Sierra.

By Don Thompson, Jumping Frog Research Institute: www.jumpingfrog.org Frogtown, www.frogtown.org U.S. Fish & Wildlife Service www.r1.fws.gov/news

ADVISORY PANELS STACKED, SCIENTISTS WARN

American scientists are growing increasingly worried that the Bush administration is manipulating scientific advisory committees in order to further its political agenda.

<http://ens-news.com/ens/jan2003/2003-01-23-10.asp>

J.R. Pegg

naturepotpourri@yahoo.com

FROGLAND

Here is a bit of fun just in case you have not seen it.

<http://allaboutfrogs.org/frogInd.shtml>

Have a look especially at the picture gallery, frog tattoos

Giselle Howard

New web sites for herpetologists:

<http://www.BiblioBid.com> + <http://www.herplit.com>

asalzberg@herpdigest.org

CODE OF ZOOLOGICAL NOMENCLATURE

It has come to light that many people seem to be confused about, or unaware of, how new or revised taxonomic designations are proposed and ultimately accepted or rejected by systematists. So I thought that it might be useful to post some useful web addresses (below) that relate to these questions.

The International Code of Zoological Nomenclature, adopted by the International Commission on Zoological Nomenclature, is followed by systematists throughout the world in naming new species and revising scientific names. The following websites give additional information and tell how to purchase a copy of the Code:

<http://www.iczn.org/code.htm> <http://www.iczn.org/>

Another code, called the Phylocode, is currently being written. It is designed to be used concurrently with the existing codes based on Linnaean nomenclature. The website is: <http://www.phylocode.org/> Stan

A. Orchard National Co-ordinator - WWF/Rio Tinto Frogs! Program WWF 9281 5515 sorchard@bigpond.com www.frogs.wwf.org.au

NEW DIABETES TREATMENT

A study using frogs hints that one day portions of diabetics' livers might be converted into pancreas tissue in the lab to restore healthy, insulin-producing cells, so that their bodies can store nutrients properly.

UK researchers have made tadpoles grow pancreas tissue from their liver cells, and turned human liver cells into pancreas cells By Kendall Powell

<http://www.nature.com/nsu/030120/030120-10.html>

References Horb, M.E., Shen, C.-N., Tosh, D. & Slack, J.M.W. Experimental conversion of liver to pancreas.

<http://www.current-biology.com/> ParcBob@aol.com

<http://Ecology-Today.eboard.com>

naturepotpourri@yahoo.com

AHS CONFERENCE 4-8 DECEMBER 2003

To be held at Mary River Park, about 100 km from Darwin and 32 km from Kakadu National Park

web site <http://www.maryriverpark.com.au/> for general information and some pictures. Bookings should be made through the conference organizers Keith Christian and Paul Horner closer to the date. S.O.

UNIQUE FEEDING BEHAVIOR FOUND AMONG TADPOLES

They chase and capture prey by using a suction mechanism. A University of Utah biologist used a high-speed video camera to identify a tiny tadpole's distinct way of eating dinner.

Instead of filtering food from water like other species of frog larvae, the petite polliwog extends its tube-shaped mouth, and then sucks in immature shrimp, water fleas or other prey in a mere six one-thousandths of a second.

the video of a tadpole eating a brine shrimp:

<http://socrates.berkeley.edu/~deban/hymenomovie.html>

or <http://socrates.berkeley.edu/~deban/hym.mov>

Press Release Univ. Berkeley, CA Stan A. Orchard



COMPARISON OF CHYTRID FUNGUS REMEDIES

From my diary entry of 7.11.2002: "... at lunchtime I came home with 200 large Striped Marsh Frog tadps from a chytrid-infested pond in Ashfield. The chytrid still has to be positively identified, but the numerous dead and dying metamorphs in and around the pond present the same picture as chytrid ponds I have been called to in Chester Hill, in Bass Hill (adjacent) and in four (!) ponds all at the same end of southern Cronulla (3 of the 4 were Green Tree Frogs, and in 3 subsequent years, the rest Striped Marsh frogs).

"This is sparse data, but the pattern suggests that outbreaks may remain localised for a while.

"The Ashfield pond is now sterilised (10 l chlorine bleach, 3 x 1.5 x .2 m concrete pond, tons of muck, a few dozen tadps and metamorphs still in it). It's a block of units, the owners and tenants all been notified, all very concerned, all loved the froggies, one lady wept bitterly. Tomorrow I'm going back to take the tarp off the pond and clean it out. Then they're putting goldfish in for a year.

"What I ended up doing was to grab a spare room that could be quarantined from the rest of the house, and to distribute the tadpoles and metamorphs over a number of tanks and to give them different kinds of generally available anti-fungal remedies. (Although "quarantined" sounds simple enough, don't try it yourself unless you are painstakingly fastidious and have at least read *Frogfacts* No. 8. Also, you may need a permit if you do a project with animals that is outside "normal husbandry and maintenance".)

In summary, this is what happened thereafter: The untreated tadpoles all died once they were baby frogs, all 58 of them.

Three lots of metamorphs (in drained cages on palm peat) were rinsed daily with the FATS chytrid solution in different concentrations and frequencies. After a few initial losses (perhaps those that were too far gone to begin with), the majority survived. They are still doing well, although their treatment stopped a month ago.

Three other lots were rinsed with a white spot cure solution, in concentrations around the level recommended for aquarium fish. Most of those given the slightly stronger solution survived, the others did not. The survivors are still ok although their treatment also stopped a month ago.

One lot of tadpoles were given the white spot cure (low concentration), but they died after metamorphosis. Two lots of metamorphs were given a single Betadine treatment (which has been useful for larger frogs). Most died, but 3 survivors are doing fine.

Here are some tentative recommendations – in case you have a tankful of baby frogs with chytrid fungus:

Thoroughly rinse their cage, together with the froglets, with a solution of "Alive-O Aqua-Remedy" (4 ml/l as per label for fish), with 250 mg/l salt added and with 2.5 mg/l benzalkonium chloride added (e.g. from Chem-Supply, S.A.). Also fill their bath bowl with it. This is also the mixture you can get at FATS meetings. Start when they are still tailed, rinse daily for a week, then every 2 days for 2 weeks. (For a drained cage design, see *Frogfacts* No. 6.)

If you instead use White Spot Remedy (Alive-O, containing 98 g/l formaldehyde and 0.85 g/l malachite green), bear in mind that the strongest concentration I used (as per label, 1 ml/10 l) may not be quite enough. At least give them an extra daily rinse with 250mg/l salty water. (Deborah Pergolotti made me aware

one-hour Betadine bath at 20 drops/l may be fine for large frogs but is far too strong or too long for babies. The few survivors appeared to be cured, though. A more detailed article will be submitted to *Herpetofauna*, L.V.

Crinia parinsignifera, Beeping Froglet
Photographed by David Nelson



LONG REEF FIELD TRIP - JANUARY 11

Seventeen members of FATS assembled at Long Reef to assist Jodi Rowley and the team from the Australian Museum. We were to survey the numerous ponds and water-courses around Long Reef Golf Course. Although it had been showery during the day, the night turned out a little on the balmy side, and fortunately we were somewhat sheltered from the worst of the cooler evening sea breeze.

Jodi began by explaining the historical land-use of this area. Originally cleared for agriculture and pasture, this present day golf course occupies one of the more impressive sites around Sydney. The natural depressions and creek lines have been rehabilitated to provide habitat for frog species, notably the Green and Golden Bell Frog. Jodi displayed photographic material of all the known frogs in this area. She also provided some pretty good renditions of their calls! Armed with this knowledge, we 'saddled up' and set out with the Museum staff to collect as many frogs as possible for measuring, weighing and micro-chipping.

Our younger members didn't let the FATS group down, and there was soon a steady supply of frogs being delivered to Jodi, who dutifully weighed and measured every frog and carefully recorded all information. We notched up several species, most prominent in the lower dams and creeks were *Crinia signifera*, *Litoria fallax*, *Limnodynastes peronii*, *Litoria peronii* and a lone example of a *Litoria tyleri*.

We moved onto the higher ponds where we hoped to spot some Green and Golden Bell Frogs *Litoria aurea* but as every good frogger knows, you cannot always expect to see every frog at a particular site, and this species eluded us tonight. Jodi felt that recently-released tadpoles may not have had enough time to metamorphose into adults, and that further surveys will be required to check on the status of this frog. We did see some more Striped Marsh Frogs (*Limnodynastes peronii*). For those frogs that were suitable, we were also able to see frogs being micro-chipped – The supermarket scanner will never look the same again! We picked up several roosting birds whilst spotlighting and enjoyed the views of a coastline lit up by city lights – a perfect way to spend a Saturday evening.

Many thanks to Jodi for an informative and insightful look at this conservation project and to the staff of the Australian Museum for their endless identification of species and their wonderful frogging hints and suggestions. **Robert Wall**

Those who subscribe to the FATS Group's FrogCall (www.fats.org.au) may remember an article in the March 1996 issue:

THINGS THAT GO BONK IN THE NIGHT

Thank goodness you're back, Claude. Hey, have you got tadpoles in your ears? I'm talking to you!

One minute, please. There, that's better. I've been counting frogs all night. And then I forgot to take my ear plugs to this morning.

If you had married me, you wouldn't need any ear plugs, Claude. I don't snore. Everybody knows that.

No, it's not the snoring, Madame, it's those mating noises. The whole neighbourhood can hear it and they're complaining now.

Not me. I would have stayed quiet.

It's too late. They have already complained to the council. Oh, but would they know who's doing it?

I'm afraid they do, Madame. You see, you can identify them by their mating noises. They all sound different. Wow! What a neighbourhood!

Mine sound like banging pieces of wood together. Down the road it's like starting a motor bike and hysterical laughter. The other night I taped one of them. I found two of my neighbours doing the same thing, as evidence for the council, they said.

How very embarrassing. Claude, what did you do?

I gave them some ear plugs. And the next day I sold them double glazing and a quiet air conditioner for their bedrooms. They weren't going to keep their windows closed otherwise. It will be much quieter now. And for Christmas I have put a "Silent Night" kit on special: two torches, a desk fan and a reminder sticker to keep the window shut and the door open. All in a gift box.

I must visit you for a demonstration. It sounds like fun with torches.

Strange, I never thought of it. Where does the reminder sticker go?

You simply let it flutter from the fan, to generate white noise. Drowns other sounds out, of course. And Madame, I can hardly wait for your visit.

Come when it's dark and rainy, and we will take the torches into the garden.

Garden??

With two torches from different sides we should be able to get a good bearing on the noisiest offenders. We'll grab them and take them straight over to the council. We'll chuck them in their pond.

You radical fiend! That's going a bit far, even for me! Oh, we would drive them over, of course. And then, in they go!

We'd get into all sorts of trouble.

Not if we get our permits first. I don't know how many. And they'd be in trouble, too!

Ah, yes. You are quite right. Because the council pond is already full of hem. And we'd have to keep at it, catching more and more in the garden as others come in over the fence and make more racket.

And they really do that?

Yes, even under the fence. Sexual frenzy knows no bounds. I think the council just has to build special facilities for them in their parks. Better than any other

monument to the council's vision and tolerance. You see, each family only has a few members that love it in people's back gardens. The rest of a whole family has nowhere they can go in this endless suburbia.

Save the ones that annoy you the most, for only they can inherit the towns. Councillors, your chance to repent! Claude, that look in your eye! Lemme out!!! L.V.

That 1996 issue of FrogCall had on the back page a few letters to the SMH editor about frog noise. The flurry was prompted by some residents temporarily having gained a local council's ear for a frog-free zone. One such letter:

"I was amazed to read that North Sydney Council wants Mrs Bannister to get rid of the wild frogs that have noisy mating rituals in her garden (Herald, January 29). The council's approach of threatening her with the Noise

Control Act is a singularly useless exercise. The frogs are simply not her property, and they are protected to boot! Will the council also decree that wild birds, flying foxes and cicadas must not use her garden, unless they are conducting themselves quietly? Surely it's not the council's librarian's jurisdiction that's expanding? Is it the dog catcher's?

"My sympathy, however, to those urbanites who manage to sleep through traffic noise but are so alienated from nature that frogs keep them awake -because I was one of them. But as my husband and I got older and plumper, we began snoring loudly. The last one to fall asleep was always guaranteed to have a bad night. That's when we started wearing ear plugs. And if the frogs are still calling in the back yard, I can't hear them. But I hope they are.

"R. Della Rose Bay

Needless to say, some feuding neighbours are so brimming with frog-rage when they ring up, that the Helpline doesn't get much opportunity to remind them of anything soothing to think about. And it's really the neighbour they want to translocate anyway.

Lothar Voigt

We have received the following query. Does anyone out there have advice that I could send to this gentleman (apart from the obvious things like not providing breeding habitat). Any thoughts much appreciated **Marjo Rauhala**

"I live in Urban Sydney and the neighbour next door has a wild frog in their yard which makes a non stop noise that is extremely loud and sounds like two pieces of wood being hit together. Is there a way to neutralise or repel the frog from the garden? some spray? as I can't get access to the garden. Is there a natural predator of frogs? Or is there a NSW department that deals with this?. Your help is appreciated as I can't sleep!!!! its worst than a leaking tap!."

THE SMITHS LAKE FIELD TRIP

in February is all booked out. Space was limited to 30 people and all spaces are now filled.

Thanks **AW**



COBAR

Cobar is not yet a desert but with the lack of rain we are on the way. A few years back I conducted a study on reptiles and mining. While doing so I frequently found frogs in my traps, especially after rain. Some started breeding within 24 hours of rainfall! Although it is not a complete list, these are the species that I found around Cobar:

Salmon striped frog *Limnodynastes salmini*
Brown froglets *Crinia parasignifera*
Giant banjo frog *Limnodynastes interioris*
Painted burrowing frog *Neobatrachus sudelli*

Green tree frog *Litoria caerulea*
Eastern burrowing toadlet *Uperoleia rugosa*

As you can see there are quite a few species but you usually only see them after good rainfall. When the drought breaks is a good time to come out here and do some spotlighting at night. This has the added bonus of a beautiful night sky! **Michael Halliger**

halligm@cobar.net.au

High country hellfire

The Australian 28 Jan 2003

After Kosciuszko national park blaze comes the daunting challenge of rehabilitation reports John Ellicott

THE executive report compiled from one of the dozens of fire fronts in Kosciuszko National Park reads: "Crazy biologist put the fires out with his jacket. Crazy biologist was recovering from a broken leg at the time."

Biologist Ken Green is down in a bog trying to save the last remnants of Australia's corroboree frog population.

The report to Green's boss, southern National Parks and Wildlife Service director Tony Fleming, continues: "On Monday (January) 13 the bog was threatened when spotovers from the Tooma dam fire ignited the grasslands east of the bog. Ken and some colleagues were on hand to put these fires out by hand."

Bog 3 contains nearly half of the 150 corroboree frogs left in the wild on the mountain range between Cabramurra and Khancoban. Such was the intensity of the fire in the park that even the reeds on top of it burned.

"Ken Green said on Monday that it was a strange feeling knowing that this particular wildfire may be the event that results in the loss of the corroboree frog," the report says.

The latest bulletin from bog 3, according to Fleming, says several croaks were heard from the area as new fires raged about — but whether they are croaks for help or a sign of survival won't be known for some time.

The 690,000-ha park faces massive ecological challenges, not only over the survival of the corroboree frog, but everything from saving the fragile humic soil right up to the highly fire-susceptible snowgums and alpine ash. It is hoped the great seed-bearing nature of the alpine trees will carry them through. *****



BYRON LOCALS HAIL RULING AGAINST DEVELOPER

Byron Bay residents were celebrating yesterday after a sensitive ecological habitat was granted a reprieve by a court ruling against the developer owners of the site. The site drains into the an adjoining wetland where the rare Wallum froglet lives. Resident Veda Turner, one of 64 people who was detained by police in a blockade of the site by residents in 1999, told the *Herald*: "We're thrilled. It's another step towards hopefully the rightful outcome - protection of a fabulous environmental asset." **Sarah Crichton SMH 18 12 2002**

Extent of the damage



Threatened animals and plants

Corroboree frog
Alpine funnel-web spider
Mountain pygmy possum
Kosciuszko water skink
White's skink
White-eared honeyeater
Superb lyrebird
Brown falcon
Silver alpine daisies, pineapple grass

Other species at risk

Brumbies
Gang-Gang cockatoo
Mountain parrots
Alpine ash
Snowgrass
Black sallee and snow gums

Serious danger: Corroboree frog

The committee found that Kosciuszko's large tracts of forests helped reduce climate change around the world by sequestering carbon. The Blue Lake wetland on the main range for instance, of which nearly 20 ha has burned, is acknowledged as of international importance under the Ramsar Convention.

The park, of course, is also the base for regional businesses in the Monaro and without it in a vibrant state, thousands of jobs would go. The huge challenge for environmentalists, the NPWS, local landholders and politicians is to get the park back up and running as a public asset without devaluing its long-term ecological future.

www.wires.au.com have a fact sheet about feral and domestic cats and what they do to native wildlife. Look at the fact sheets, under "Cats and Wildlife" Laura Werth

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. Despite the current drought-crisis, 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.

February 21-23

Smiths Lake Camp-Out.

BOOKED OUT

University Of N.S.W. Field Studies Centre Smiths Lake.

Leaders : Arthur & Karen White.

Set on the beautiful shores of Smiths Lake this venue has become synonymous with frogging excellence. By night, explore the mysterious world of frogs, wallabies and possums. During the day, swim, bushwalk or simply relax in the north coast sunshine. Cabin/dormitory accommodation and camping sites available. All kitchen facilities / utensils / crockery supplied. Bookings essential. Nightly fee of \$12 per person. Phone Arthur & Karen White directly on ph. 9599-1161 for further details and bookings.

Note : Limit of thirty people.

March 8 8-30p.m.

Heathcote.

Immediately after crossing over railway bridge near intersection of Princess Hwy & Heathcote Rd, veer right & park in Wilson Pde. Meet in Wilson Pde, 100m from this bridge.

Leader : Steve Weir.

We have had numerous requests for Steven to lead field-trips for us this year. Many of you will have accompanied Steve on field-trips previously and already know of his encyclopaedic knowledge of herpetology & his consummate skills in the field. Tonight, we will examine some of those frogs that call the Sydney sandstone 'home'. We will explore the wide variety of micro-habitats that may be found in these regions & look at how this impacts upon the distribution of frog species. Our last field-trip for this Spring / Summer season !

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! Your leader is there to help you achieve maximum enjoyment from your frogging experience - Please observe all directions that he / she may give. Children are welcome, however please remember that young children especially can become very excited and boisterous at their first frogging experience - Please help ensure that the leader is able to conduct the trip to everyone's satisfaction. Unfortunately, due to current insurance requirements, all field trips are strictly for members only. Newcomers are however, welcome to take out membership before the commencement of the field-trip. -This situation has been imposed upon us and we regret any inconvenience.

Pottery by Janet Woodworth



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

Meetings are held on the first Friday of every **even** month (February, April, June, August, October and December) at 6.30 pm for a 7:30pm start. **NO MEETINGS ARE HELD ON GOOD FRIDAY** so check each newsletter for alternate dates. Visitors are welcome. We are actively involved in monitoring frog populations and in other frog studies, and we 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.

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