

FROG CALL



THE FROG AND TADPOLE
STUDY GROUP OF NSW INC.
ABN 34 282 154 794

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7 PM for a 7.30 PM start, FRIDAY

1st December 2000 AUSTRALIAN MUSEUM, WILLIAM ST ENTRANCE

Face painting at the Zoo



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MEETING FORMAT for 1st December 2000

7.30pm -	Glen Shea The history of discovery of Australian Frogs
	Lothar Voigt The Frogmobile
	Rob Townsend on frogs of Madagascar
8.45pm	Panel Question Time
9.00pm	5 favourite frog slides or 5 minutes Guessing competition and Auction
9:45pm	Finish for tea, coffee & biscuits



Glenn Muir and Trent Penman presented the story of the Green and Golden Bell frog and the Sydney Olympics. The Green and Golden Bell frog was first discovered at Homebush Bay in 1992. The brickpit was surveyed in 1993 and 1995 by scientists including Arthur White, Michelle Christy and Graham Pyke who found core and ephemeral habitats. This was a self sustaining population. If Olympic development occurred the frogs would be wiped out.

The site was ideal for frogs with collected rainfall, breeding sites, boulders and rubble for shelter and pampas grass to offer protection from predators. The OCA funded and implemented the works whilst the Australian Museum monitored the frog population and provided advice. At present there are some 1500 adult frogs breeding in 19 locations. Thank you Glenn and Trent for the descriptive slides, presentation and congratulations on receiving the Banksia Award.

FATS members were encouraged to attend the public meetings on 18/10 at Sutherland, 20/10 Dulwich Hill and Manly Library 26/10 concerning NSW wilderness areas.

Dominic Borin and partner Vicky our newer members, have launched into frog rescue and quarantine with enthusiasm and ingenuity. Large numbers of frogs require special techniques to ensure water borne diseases do not transfer between enclosures. Dom. described and displayed slides of his quarantine set up and fielded questions.

Lou Petho presented information about the September 2000 conference "Getting the jump on amphibian diseases" in Cairns. He presented the history of the fungus, Chytridiomycosis and Ranavirus. Forty six species of amphibians in Australia have been found infected with the amphibian chytrid, *Batrachochytrium dendrobatidis*. Of these one species, *Taudactylus acutirostris*, is listed as extinct; the last known specimen died from chytridiomycosis in captivity at the Melbourne Zoo in 1995. Chytrid has also been found in 8 endangered and 5 vulnerable species as well as in threatened species. The internet disease pages are:
<http://www.jcu.edu.au/school/phtm/PHTM/frogs/ampdis.htm>
<http://www.jcu.edu.au/school/phtm/PHTM/frogs/gjinichol.htm>

Anne Meihs discussed what's in frog guts. The Indian green frog *Rana hexadactyla* feeds on macrophytes and algae. *Hyla truncata* from South America eats fruit. The cane toad *Bufo marinus* has been reported to eat vegetable scraps and dog food. Cannibalism may be more common than we think. The African clawed frog *Xenopus laevis* feeds on eggs and metamorphs of its own species. The horned frog *Ceratophrys coruta* eats frogs, lizards, lizard eggs, snakes and mice. A *Ceratophrys calcarate* has been observed vibrating and undulating its 4th and 5th toes of its hind foot with its hind foot raised. This behaviour was not displayed when crickets were present. Other frogs appear to be attracted to the undulating hind foot and continued to approach even when the larger frog began to lunge at the small frogs. Thank you Anne for a fascinating description of feeding behaviour and prey capture.

Congratulations to Dominic Borin, David Nelson and winner of the "Bucket of toads" book. The meeting ended with frog adoptions galore. **MW**

Our FATS Christmas party is again at the Australian Reptile Park, on Sunday, 3rd December. Come from about 11 a.m. onwards and bring with you: your membership receipt (so you won't have to pay to get in), your food to put on the barbie and your drink. You will also find many members of the herpetological societies at the party. And you can see how well the Park has recovered and rebuilt from the fire. Our thanks to Robyn and John Weigel, and to the Australian Herpetological Society, for the kind invitation. Please advise Arthur White if you are attending. **LV**

FROGWEEK 2000

We had it down to a fine art, of course. The main event was a weekend at the zoo with our posters and panels and handouts and stuff. Our seasoned Frog Explainers Elisabeth, Punia, Karen, Arthur, Vicky, Dominic and Mark and Wendy were again in the thick of it, right outside the Serpentaria. Taronga had organised the live frogs, the froggy face paintings and even frog workshops. The day before, they launched their fancy frog web site which you might also like to have a look at: www.asx.frogfocus.com.

Many of the other zoos and animal parks had their own Frogweek displays; we sure have started something. And no doubt some of you, dear members, decorated your shop windows or bumper bars or your kid's classrooms for the occasion. Do let me know, please, and how it went.

Sadly, I missed Taronga's launch party but I was in James O'Brien's ABC radio studio that day, talked about Frogweek and had time for 6 or 7 callers-in with froggy questions. Just like at home. Only, James runs a program for country areas, and the questions came from places with good frog habitats and where listeners had much interest in the Wallum Froglets and Green and Golden Bell Frogs that are or were in their neighbourhood.

Arthur and Monica had snuck an articles in their local papers about the apparently declining Green Tree Frogs. Of course they put the FATS mobile phone number in, and of course I only found out when almost every Helpline call for the next few days was about Green Tree Frogs. **L.V.**

OTHER EXHIBITIONS

And as always, in the lead-up to Frogweek we had a great weekend at the Ku-Ring-Gai Wildflower Festival, mingling with frog-happy gardeners wandering around with pot plants in one hand and a sausage roll in the other. Here people have time to stop and read our posters and to talk to us. ("Us" was Dom and Vicky, Karen Thumm, Karen White, Arthur, Joan, Susan, Elisabeth, Peter and Robyn, Punia, Wendy, Barbara and me.)

The Pet and Animal Expo at Rosehill is still running at the time this is going to press. Environment Australia have given a generous chunk of their booth space to us. Many thanks to them, as well as to our on-instant-call Frog Explainers Arthur and Karen, Harry and Lynda, Cameron, Rosemary, Annie and Dom and Vicky.

Ocean Care Day at Manly (Harbour beachfront) is on Saturday, 2 December, the day after the next meeting. If anyone would like to help me, please let me know at the meeting. Otherwise I will be on my own, and that's no fun. Well, not as much anyway. **L.V.**

THE OSRAM - FATS GROUP FROGMOBILE

A. FM Design

The official name may not be final yet, but Osram is our sponsor, their first payment has come through, and off we go!

There has never been a better time to motivate and educate the public and the media about the plight of frogs. But will anybody take any notice of our rolling frog stock? Will the frogs be ok inside? Even if they stay in there permanently, all year long? What if our FM is too tall to be garaged? If there's a heat wave or a hail storm? What if the pumps or the fans pack up? If vandals have a go at it? What about speed humps? Cage disinfection? Spreading or picking up frog diseases? Plants getting enough daylight? The air conditioning electricity bill, not to mention the money for everything else? A bit scared? Then we're all in a yellow Frogmobile!

The sketches in this issue will give you an overview. Not all is explained in them, but they are only a sample of the many drawings and specs and costings and alternatives that have accumulated. I am putting heaps more on a web site later in December and hope to have the domain name for you at the next meeting. There should also be a link to it from the FATS web site. I would then like to ask you to go through the design details with a fine comb and - where you are in a position to do so - to comb the bugs out, or maybe to come up with better alternatives.

If we have the details down pat before the end of January and the permits in the bag, we'll move straight on to the next phase, the working bees.

B. FM WORKING BEES

Just in case you haven't had any good bees lately, here comes your chance. How many Frogmobiles have you helped to build where you could sign your name on the paintwork? Can't wait to see it take shape? And to have your first field trip in it?

If I did it all myself, it would never ever get done. If I had everything done commercially, every hole drilled and every brushstroke, it would blow the budget. But with that many members with so many different skills, it will almost be a piece of cake.

Most of the items listed below (e.g. "caravan-type air conditioner") have several areas where you could help, e.g

1. Can you get it (and get the right one)?
2. Do you have useful contacts for advice or discounts?
3. Can you install it? Do you have skills and maybe tools in this area?
4. Could you make time to lend a hand?

Admin team:

Check and rework specs, drawings and costings
Get approvals and licences
Order trailer (or select 2nd-hand cab & chassis)
Order tanks and equipment
Select insurance
Coordinate project and sub-projects
Pre-plan working bees

Publicity team:

Film and photograph progress
Media coverage
Government, vendors and sponsor liaison

Metalworker, welder:

Tubular steel cage racks
Roof rack frame
Hinged stepping boards
Attachment points for awnings and padlocks etc
Holders and brackets for batteries and drums

Carpenter and assistant:

Roof structures
Inner and outer panels
Cutouts for viewing holes, drainage, fans, grilles etc
Shelves for tanks and storage
Drawer for pond model
Fold-down tables
Storage compartments
Make and install skytubes
PVC pipes, cut lengthwise for roll-down awnings

Electrical engineer, electrician, auto electrician:

Check regulations and final planning
Caravan-type air conditioner
Backup fan with shutter flap or auto-shut-off
Truck batteries, charger, isolation switch
Cabling
12 V, 24 V, 240 V vehicle-approved switches, circuit breakers, junction boxes, power boards, plugs, adapters etc - for FM, cage lighting and cage modules
12 V timers and fluoros
Transformer
Provision for inverter, VDU, solar panels
Mains meter in FM
Temperature alarms, security alarm equipment and connections

Painter:

Spray painting the FM

Artist(s), signwriter:

Frog/jungle artwork on panels
Signage, logos
Large frog model over cab, or rollable floppy cloth frog
Pond-in-progress model (in sliding drawer)

Handywoman, -man:

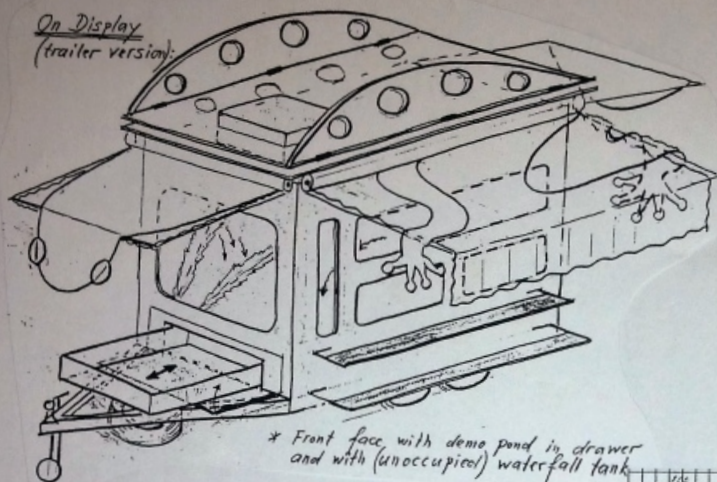
Rustproofing, pre-painting
Thermal wall insulation
Weatherstripping
Install and secure (heavy) tanks, drums etc.
Roll-down awnings and winding mechanism
Safety and emergency equipment
Assistance with cage furnishings

Plumber, people with PVC plumbing skills:

Fittings for penetrations through drums and tanks
Water filtration and drainage containers and connections
Air filtration containers and connections

Please contact me on 9371 9129 or 0419 249 728 if you can partake in all the excitement and in the FM working bees in and after February. **L.V**

On Display
(trailer version):



* Front face with demo pond in drawer and with (unoccupied) water-fall tank

On the Road:

- * Panels down
- * Awnings up

Floppy frog
panels
retracted.

Front panel with
see-through
cutouts to
uninhabited
water-fall tank.

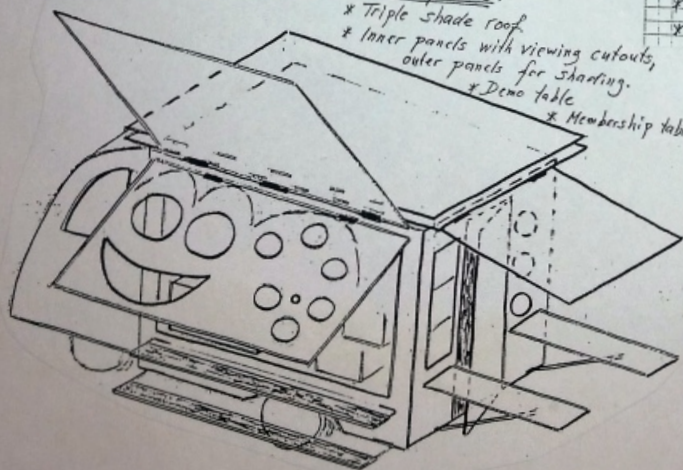


When parked
unattended:

- * Awnings down and
cloaked to be
unconspicuous.

The panels:

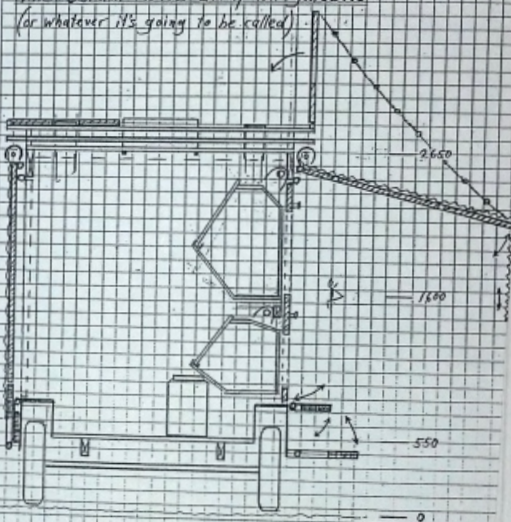
- * Triple shade roof
- * Inner panels with viewing cutouts,
- outer panels for shading.
- * Demo table
- * Membership table



THE AUSTRALIAN — Tuesday October 31, 2000



The Ocean - EATS Group Frogmobile
(or whatever it's going to be called):

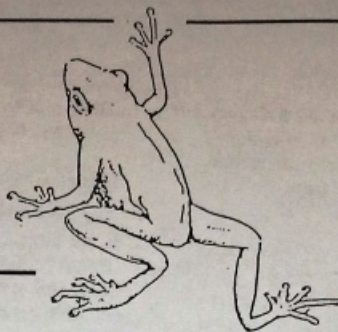


- * Tanks in 10 mm tempered glass.
- * Inner panel seals conditioned air in.
- * PVC-pipe stylobes bring in daylight.
- * When travelling, all water is obtained into drums.
- * Full quarantine conditions.



FROGFACTS

No. 7



Frog and Tadpoles Study
Group of NSW Inc.

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FROGS OF THE SYDNEY REGION

Summary

This sheet lists the 26 frog species that occur in the Sydney region. It gives a brief description of some of the most common species, as well as of the four species that are listed as threatened or endangered. It also provides an insight into why some of these species live in their specific areas.

Limits of the Sydney Region

For the purposes of this information sheet, the Sydney region is defined as the area bounded by the Hawkesbury River to the north, the Nepean River to the west and O'Hares Creek to the south.

Characteristics of the Sydney Region

This region is dominated by the broad, fairly flat Cumberland Plain that extends from Ashfield to Penrith. Sandstone plateau areas are prominent in the north (Hornsby plateau) and the south (Woronora plateau). The Cumberland Plain is a large sedimentary area that is mainly comprised of shales and clay soils; the plateau areas are sandstone and are deeply eroded to form steep gullies, rocky escarpments and ledges. Because the plateau areas are elevated the streams that cross them are usually small, confined to narrow gullies. Streams crossing the Cumberland Plain are broader and shallower and meander as they travel across the plain. The sandstone areas also suffer weathering that creates deep sand beds lying atop more impervious layers. This creates perched swamps and wetlands. Water seeping from these wetlands may travel below ground before emerging as seepage areas where the sandstone reaches the surface. The clay and shale areas of the plain are highly water absorbent and can hold surface water for longer periods of time than the sandstone areas. The creeks on the plain often hold water for many months after rain; the creeks stop flowing and isolated pools remain along the watercourses.

Life for a Frog in the Sydney Region

In general, few frogs are able to live in both plateau and plain habitats. Each habitat has its own particular demands. The frogs that live in the sandstone areas need to be able to cope with the acid run-off water from the sandstone, be able to exploit the subterranean water held in the weathered sandstone and to survive in the absence of surface water. Frogs that live on the plain need to be able to cope with the variable water levels, low dissolved oxygen levels in stagnant pools, large fluctuations in the water temperatures, and be able to escape when flooding occurs.

For frogs in the Sydney region the biggest hazards to their survival are the result of human-made impacts on their habitats. These impacts include land clearing and habitat destruction, water contamination from industrial and urban run-off, predation and competition by introduced animals. In addition, new diseases that kill frogs have been detected in the Sydney region.

The Goalposts keep Moving

The distribution and abundance of frogs in the Sydney region is constantly changing. Frogs are displaced as land uses change and some frogs turn up in areas where they were not previously known. In some cases, our knowledge of the distribution of the frogs in this region has been inadequate; two recent examples of this include the discovery at Kurnell in 1995 of Wallum Froglets (*Crinia tinnula*), a threatened frog species (this species had never been recorded in the Sydney region prior to this discovery); and the discovery of

Giant Burrowing Frogs (*Heleporous australiacus*), another threatened species, at Wedderburn in Sydney's south. These areas have been surveyed at various times throughout Sydney's history and these frogs were not detected.

Lots of Frogs

The Sydney region is home to 26 species of frogs: 14 species of tree frogs (Hylidae) and 12 species of ground frogs (Myobatrachidae). Only four or five species are likely to be encountered by people in the more urbanised parts of Sydney. The four most-widespread species are:

Striped Marsh Frog *Limnodynastes peronii*

This frog is up to 7 cm in length and is dark brown with brown stripes running lengthways along the back. It makes a characteristic "pock" noise (which is why it is sometimes called the tennis ball frog). This species will readily move into backyard frog ponds.



Common Eastern Froglet *Crinia signifera*

These small frogs are only 2 to 3 cm long. They are rarely seen but are heard in all parts of Sydney. They make a "creek-creek" noise and occur anywhere where there is very shallow water and somewhere to hide.



Peron's Tree Frog *Litoria peronii*

This dappled brown tree frog occurs around larger ponds and dams. It makes a "maniacal cackle" rather like a silly laughing sound. Although it is a tree frog it

will live in tree-less areas (as long as there are some bushes nearby).

Spotted Grass Frog *Limnodynastes tasmaniensis*

This grey frog is between 3 and 5 cm long and has darker large spots on its back. It makes a rapid "ack-ack-ack" noise. Like other *Limnodynastes* it makes a frothy spawn mass that is concealed in flooded grass or pondside vegetation.

If you want more detailed information about each species, read Martyn Robinson's *A Field Guide to Frogs of South-eastern Australia*.

Sydney's Threatened Frogs

There are four listed threatened or endangered frogs in the Sydney Region. These are:

Green and Golden Bell Frog *Litoria aurea*

This brilliantly coloured frog has declined dramatically in New South Wales since the early 1960s. Strangely enough, it has found refuge areas in Sydney, in old industrial sites and dis-used mining pits and quarries. In Sydney, Green and Golden Bell Frogs are mainly found in the Homebush Bay area (near the Olympic site) and at Kurnell. Occasionally Bell frogs are seen at sites along the Georges River and at St Marys.

Several programs are underway to protect the remaining Bell frog population around Sydney. Many of these programs involve the creation or restoration of habitat areas for the frogs. In 1998, the ponds on the Long Reef Golf Course were modified to make them frog-friendly. Bell frog tadpoles were translocated to the sites and now there are adult Bell frogs on the golf course. Bell frog ponds were specifically built at Arncliffe to provide habitat for Bell frogs dislocated by the construction of the M5 East motorway. For more information see Frogfacts 5.

Red-crowned Toadlet *Pseudophryne australis*

Red-crowned Toadlets are small ground frogs. They only occur around the Sydney region, on areas of Hawkesbury sandstone. They spend most of their lives under the cover of leaf-litter or under shallow soils and rocks. They feed on the tiny insects and invertebrates that live in the leaf-litter. Red-crowned Toadlets do not need free water in which to lay their eggs; they can lay on damp ground as their eggs are encapsulated. The developing tadpoles can go through most of their development inside the eggs. After heavy rain, the sodden eggs split and the tadpoles or young frogs are released.



Red-crowned Toadlets have suffered badly as a result of urban development around Sydney. They were once widespread throughout the upper and lower north shore but have almost totally disappeared from the lower north shore. The reason that residential developments affect them so badly appears to be related to several factors; being ground frogs they are dependent on ground water content, but the construction of roads, building squares and other concreted or sealed areas radically alters the flow and volume of ground water. Changes in ground water then alter the nature of ground shelter and feeding areas, and many of the soil invertebrates are also displaced, leaving the toadlets with little food.

At present, Red-crowned Toadlets are most common in areas on or around the Hornsby plateau and Woronora plateau. In some cases populations occur in reserves such as Ku-ring-gai Chase, Muramura, the Royal and Heathcote National Parks.

Giant Burrowing Frog *Heleioporus australiacus*

Giant Burrowing Frogs are the size of an orange but are rarely seen by people. They spend most of their lives in burrows below ground. They often only emerge after heavy summer rains when frogs will move from ridge-top shelter sites to wetter breeding areas. In the breeding areas, they again construct a burrow, and the males will often call from the burrow. They make a soft but rapid 'who-who-who-who' noise (for this reason they are sometimes called the Eastern Owl Frog).

Giant Burrowing Frogs only occur on deeply weathered sandstone areas. They seem to need deep, moist sand beds as burrowing sites. Often these areas are overgrown by wet heath. Giant Burrowing Frogs are not common and it is not known how badly affected they have been by urbanisation, as many of their known habitat areas are unsuitable for residential or agricultural use. No Giant Burrowing Frogs occur in highly urbanised areas.



Wallum Froglets *Crinia tinnula*

The first Sydney sighting of this species was in 1995, on the Kurnell peninsula. There are two reasons why sightings were not recorded prior to this date. Firstly, Wallum Froglets are superficially similar to the Common Eastern Froglet and may have been mistaken for this species. Secondly, Wallum Froglets are winter breeders, and so were missed by frog-lovers who didn't maintain their frogging activities during the colder months.

Wallum Froglets only occur in very distinctive habitats on the peninsula: the *Juncus*-dominated swamps, close the coast. Many of these swamps have a high salt content and the water is very acidic.

The Complete Frog List

Tree Frogs:

Green and Golden Bell Frog <i>Litoria aurea</i>	Homebush Bay to Parramatta, Kurnell, Arncliffe, Long Reef, St Marys
Green Tree Frog <i>Litoria caerulea</i>	Mainly in western Sydney, Richmond, Windsor, Penrith, Engadine, Warragamba
Blue Mountains Tree Frog <i>Litoria citropa</i>	Helensburg, Darkes Forest
Dwarf Tree Frog <i>Litoria fallax</i>	Western Sydney from Liverpool to Penrith, Engadine, Heathcote, Lane Cove, Hornsby, Glenorie, Windsor
Peron's Tree Frog <i>Litoria peronii</i>	All parts of the Sydney region
Tyler's Tree Frog <i>Litoria tyleri</i>	Kurnell, Voyager Point, Holsworthy, Picnic Point.
Jervis Bay Tree Frog <i>Litoria jervisiensis</i>	Kurnell, Centennial Park, Darkes Forest
Orange-bellied Tree Frog <i>Litoria littlejohni</i>	Darkes Forest
Bleating Tree Frog <i>Litoria dentata</i>	Warragamba, Penrith, Windsor, Baulkham Hills, Hornsby, Manly Dam, Kurnell, Darkes Forest, Helensburg, Wedderburn.
Broad-palmed Frog <i>Litoria latopalmata</i>	Penrith, Warragamba, Windsor, Cherrybrook, Horsely Park, Prospect, Engadine, Helensburg.

Lesueur's Frog <i>Litoria lesueuri</i>	Warragamba, Penrith, Windsor, Richmond, Audley, Helensburg, Holsworthy.
Leaf-green Tree Frog <i>Litoria phyllochroa</i>	Lane Cove, Killara, Hornsby, Engadine, Audley, Heathcote, Darkes Forest
Freycinet's Frog <i>Litoria freycineti</i>	La Perouse, Bundeena, Helensburg, Darkes Forest, Menai, Holsworthy
Verreaux's Frog <i>Litoria verreauxii</i>	Penrith, Richmond, Warragamba, Baulkham Hills, Hornsby, Kurnell, Helensburg, Darkes Forest

Ground Frogs:

Tusked Frog <i>Adelotus brevis</i>	Darkes Forest, Terrey Hills
Giant Burrowing Frog <i>Heleioporus australiacus</i>	Riverstone, Canoelands, Glenorie, West Head, Mona Vale, Menai, Waterfall, Wedderburn
Common Eastern Froglet <i>Crinia signifera</i>	All parts of Sydney
Wallum Froglet <i>Crinia tinnula</i>	Kurnell
Red-crowned Toadlet <i>Pseudophryne australis</i>	Canoelands, Glenorie, Baulkham Hills, Hornsby Heights, Mt Kuring-gai, Berowra, Killara, North Head, Bradleys Head, Garie, Audley, Heathcote, Waterfall, Helensburg, Darkes Forest., Holsworthy
Bibron's Toadlet <i>Pseudophryne bibroni</i>	Hornsby Heights, Arcadia, Beacon Hill
Striped Marsh Frog <i>Limnodynastes peronii</i>	Found throughout Sydney
Spotted Grass Frog <i>Limnodynastes tasmaniensis</i>	Penrith, Windsor, Annangrove, Kellyville, Parramatta, Homebush, Mt Ku-ring-gai, Horsely Park, Prarieewood, Prospect, Liverpool, Holsworthy, Menai.
Eastern Pobblebonk <i>Limnodynastes dumerilii</i>	Kurnell, Darkes Forest, Heathcote, Helensburg, Malabar, Voyager Point, Sandy Point, Chipping Norton, Lugarno, Berowra, Hornsby
Haswell's Frog	Darkes Forest, Helensburg,

*Paracrinia
haswelli*

Jibbon Lagoon.

Red-groined
Toadlet
*Uperoleia
laevigata*

Windsor, Penrith, Warragamba,
Vineyards, Riverstone,
Baulkham Hills, Vision Valley,
Cherrybrook, Mona Vale, Terrey
Hills, Darkes Forest,
Helensburg, Heathcote, Menai,
Holsworthy, Wedderburn.

The Future of Frogs in Sydney

In general, most frogs have suffered as a result of urbanisation in the Sydney region, although a few species, such as the Striped Marsh Frog, have actually benefited and increased in numbers.

The protection of frog habitats and wetlands is now a pressing issue if we are to keep our frogs. Many people are helping by putting frog ponds in their back yards. You can help by keeping pressure on your local council and storm water authorities to continue to put in mechanisms (such as basins landscaped with wetlands plants) that will help improve storm water quality, and by helping to conserve local wetlands and to help educate your local community about the value of maintaining native animals in the local area.

Recommended Reading

Ehmann, H. (ed.) (1997). Threatened Frogs of New South Wales: Habitats, Status and Conservation. FATS Group, Sydney.

Robinson, M. (1994). *A Field Guide to Frogs of Australia - from Port Augusta to Fraser Island, including Tasmania*. Australian Museum/Reed Books, Sydney. R.R.P. \$ 19.95.

White, A. (1995). The Green and Golden Bell Frog. Frogfacts 5: 1-4. FATS Group, Sydney.

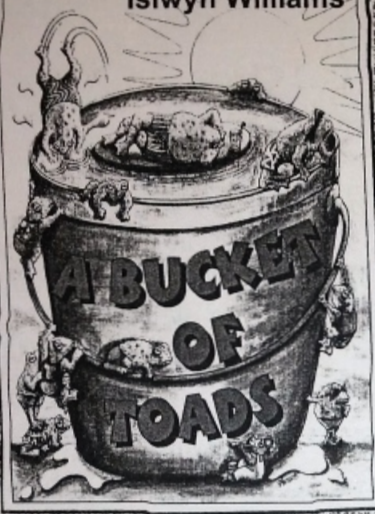
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Illustrations: Ben White.
Editor: Lothar Voigt.

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Islwyn Williams



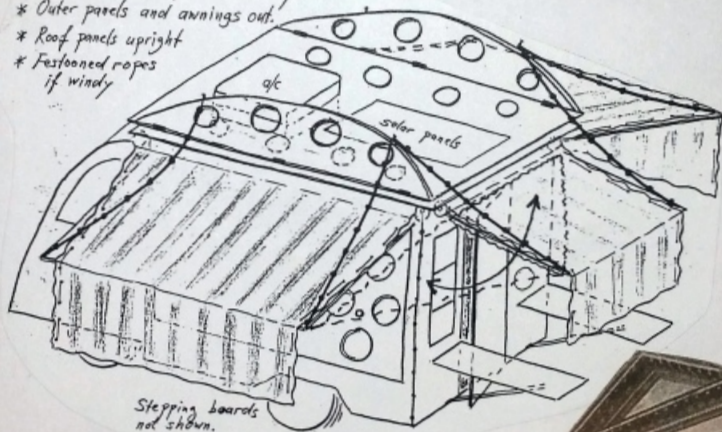
Illustrated by Anton Kressling



Wendy Grimm Frogweek Explainer

On Display (van version):

- * Outer panels and awnings out.
- * Roof panels upright
- * Fastened ropes if windy



Have you seen this frog...
the peppered tree frog
at the centre of the
Environmental Court battle



FROGBITS AND TADPIECES

THE STATUS OF GREEN TREE FROGS IN NSW

One of the best known frogs in New South Wales is the Green Tree Frog *Litoria caerulea*. These frogs, famous for living in the laundry and toilet of country houses, and for making loud, booming calls from inside down pipes during stormy weather are now no longer a familiar sight. The spread of cities and agriculture, combined with the arrival of exotic diseases that kill frogs have reduced Green Tree Frog numbers in different parts of the state.

Frog Week 2000 provides the perfect venue for alerting people to the plight of this well-loved species. In response to the declines, the New South National Parks and Wildlife Service, The World Wide Fund for Nature and the NSW Frog and Tadpole Study Group are hosting surveys of Green Tree Frogs. The surveys are intended to get an assessment of the status of Green Tree Frogs this summer. This information can then be used to compare with historic information as well as be a useful reference measure for subsequent surveys.

All frog and natural history groups, conservation groups and interested residents will be invited to partake in the survey. The hope is to get information from as many different areas as possible. A survey of this type will only work if surviving as well as extinct populations are surveyed (otherwise we will never know if there is a pattern to the loss of the frogs). If you are asked to participate in the survey, please do so, even if you are in an area where the frogs no longer occur. Announcements about the surveys and where to get survey forms will be made shortly. **Arthur White**

INTERNATIONAL AMPHIBIAN DAY

Well, it's a mélange of fresh amphibian, smothered with our chef's own professional lecture sauce, and surrounded by a gaggle of global enthusiasts and accompanied by a lightly tossed and spicy zoo and aquarium tour salad, Served piping hot. The first event to support captive breeding, conservation and ethical commerce of amphibians With the participation of noted breeders, scientists, and hobbyists 3 to 5 November 2000 Baltimore North, Timonium MD USA All proceeds benefit the Declining Amphibian Populations Taskforce and the Center for Ecosystem Survival **Curtis Olson** olson_c@mediasoft.net and anuran@bb-elec.com <http://www.intlamphibday.org>

CANE TOADS INFO NEEDED

I'm producing a cane toad film here at the BBC natural history unit. The film is mainly from the toad's point of view ie. no contributors speaking to camera. Anyone have any interesting cane toad anecdotes? We're going to tell the cane toad's story...CONTACT: Emma Rigney Producer Rm 28 15/17 tpr BBC Natural History Unit Whiteladies Rd., Bristol BS1 6UB United Kingdom Tel: +44 117 974 7667 Mob: 07968 200 168 e-mail: emma.rigney@bbc.co.uk



RESEARCH SUMMARY

I am in the process of developing the WWF Frogs Program website and would like to synthesise as much information as possible related to amphibian research in Australia. Could you please take a couple of minutes to answer the following questions:

- 1) Where are research and conservation projects underway? - detailed geographical descriptions are not required since these will be dots plotted on a small map of Australia.
- 2) Who is involved? - including researchers names, institution/agency, funding
- 3) What species of frogs are involved?
- 4) What is the title of the project?

I believe that it will be useful for everyone to see at a glance where frog research is underway and where it is not in this country, and to be able to trace it back to the source. Except in the vaguest terms, the nature of the research does not seem to me to be vital, compared to basic information on who is active and with what species and where.

Another area that people have expressed interest in is an up-dated listing of current literature and research results, including theses and even magazine articles and book reviews, as long as it is all relevant to the frog fauna of Australia and frog research by Australians. I am planning to hire a full-time technician to keep the website current and comprehensive which should be of general benefit to the frog research community. Your co-operation would be greatly appreciated. Please forward all replies to the e-mail and postal addresses below. Many thanks. **Stan A. Orchard** National Co-ordinator - WWF Frogs Program World Wide Fund for Nature Australia, GPO Box 528, Sydney, New South Wales, Tel: 61 2 9281 5515 Fax: 61 2 9281 1060 E-mail: sorchard@bigpond.com



Recently as I was watering our grass tree in a pot on the front verandah, I spotted our little friend perched on the inside of our watering can. He then proceeded to hop out and follow us as we walked into the house through the front door. I managed to push him out gently as he tried to hop into our lounge room! I was able to keep him outside only to jump onto the screen door. We were able to take these photos of the event until he decided he had enough and hopped off into the darkness into our native garden. That was a beautiful close encounter of the frog kind and it felt wonderful to have nature come to you! **Ben and Wendy.**

SMITH'S LAKE FIELD TRIP REPORT

The moment we got out of the cars, we were deafened by several hundred decibels of frog noise coming from all around us. We were at twin waterholes a few kms from 'base camp' the UNSW Field Studies Center at Smith's Lake.

We, the team attending the Spring 2000 Smiths Lake Field Trip consisted of Arthur White - the leader and guide, the one with all the answers, Lou Petho and Anne Miehs, Phillip and Wendy Grimm, the Spradbrow family, Dad and Me. We had assembled at around 7pm to do some frogging, and now had reached our first site.

The main racket from the trees came from Peron's Tree frogs *Litoria peroni* and the closely related Tyler's Treefrogs *Litoria tyleri*. At a much higher pitch was the almost constant whirr of the Whirring Treefrog *Litoria revelata*, tens of which were perched (sometimes amplexing) on the waterside reeds, side by side with the creaky Eastern Dwarf Treefrog *Litoria fallax*. The clipped double tone of the Tusked Frog *Adelotus brevis* and the single click that was the Striped Marsh Frog *Limnodynastes peronii* came from the water, where both species had spawned, and which was luckily not *Gambusia* infested, making it a prime frog spot. The Red Groined Toadlet *Uperoleia fusca* and Smooth Toadlet *Uperoleia laevigata* were heard calling from deep within the leaf litter.

The count for this site was eight species, and we reluctantly moved on after seeing a disused goanna run, an Eastern Water Dragon, and koala scratch marks on a gum tree.

Our next stop was Sugar Creek, which was but a trickle, where Arthur tried to persuade some Great Barred Frogs *Mixophyes fasciolatus* to call, by shouting out 'WHAT' to them, but to no avail. Flipping a few logs in the area caused us to find some Red Backed toadlets *Pseudophryne coriacea* with startling black and white blotched underbellies. Illuminating a Greater Glider with a spotlight in the top of the gum trees was a highlight, and we moved on to visit a few more sites.

How Pierre the frog stopped a court case in its tracks - photos page 9

The Australian Museum, where Pierre is missing.

By SIMON BENSON
Environment Reporter

MISSING, one preserved peppered tree frog which goes by the name Pierre — last seen in a spirit jar somewhere in the Australian Museum, Sydney.

A request has now been issued by the Land and Environment Court for the recovery of Pierre, now a central figure in a dispute between the owners of the controversial Timbarra gold mine and a local resident and environment group.

Pierre may or may not be the last known specimen of an endangered species and relative of the green and golden bell frog (*Litoria piperali*), not seen alive in the northern NSW Timbarra region since 1973.

And his identification could provide the answer to whether the future of the peppered tree frog would be put in danger by a plan to draw water for the mine from a local river.

That answer should have been given on Wednesday

when Justice Bignold in the Land and Environment Court ordered two opposing scientists to leave his court and go to the Australian Museum in College Street to find the specimen thought to be Pierre.

A positive identification of Pierre would have solved the legal question of whether it is indeed the endangered peppered tree frog allegedly under threat from Delta Gold's government-approved plans to draw water from the Nelson River near Tenterfield for the restart of the controversial Timbarra mine.

Unfortunately, when Dr Mike Mahoney from Newcastle and Dr Michael Tyler from Adelaide returned to court after two hours searching for Pierre, they had bad news. Pierre had disappeared.

"He had done a bolt," said Dr Mahoney.

"I don't think there is anything sinister in it. They have hundreds of thousands of specimens in jars and one going astray is not uncommon."

Now a subpoena is expected to be issued for his recovery and a local action group is threatening to close the mine down and fund an expedition to find the elusive Pierre.

Dr Mahoney thinks Pierre is indeed the peppered frog — but Dr Tyler disagrees.

Al Oshlack, representing the Timbarra Action Group and

Between two of these we found a Stephens Banded Snake, a rare and venomous rainforest elapid on the road, scared off Red Necked Pademelons and Grey Roos, but no extra frog species were sighted or heard, and we headed back to camp for some hot drinks and bed.

The next day some backyard cricket was played, some photography was done and lunch was eaten. A 5-6 foot Eastern Brown Snake was seen crossing the camp. After dining we headed out to the forest to the Whoota Whoota Lookout for a bit of bushwalking, during which we found a small skink and a giant squirtworm under logs. More koala marks were seen, and we headed back to gear up for more frogging.

It was fairly windy that night, and we weren't too hopeful for any new species, but at a water-filled ditch 500 metres from camp we found a curry scented and orange thighed Jervis Bay Treefrog *Litoria jervisiensis*, a winter breeder out for a spring romp. We headed to the forest containing the 'Grandis' the alleged tallest tree in NSW, and a site for Red-Eyed Treefrog *Litoria chloris* which was unfortunately neither seen nor heard. We did however hear more Red Backed toadlets calling from a dry stream bed and glow worms illuminated the banks. A Leaf Tailed Gecko was found in the crevices of an upturned tree's roots, a home it shared with a giant land snail. Our last site was a bullrush covered swamp, where high gumboots were a real asset. This was a Freycinet's Frog *Litoria freycineti* site, but we were greeted with silence. We headed in anyway, and several of this species were sighted (but not caught!) and I was bitten by a spider that made my arm swell up and itch a day later. All in all this was an entertaining, interesting and informative trip for all involved, with 11 frog species seen or heard and it provided a unique opportunity to see many of our favourite little friends in their natural habitat.

David Nelson



native title claimants, said Pierre, their central witness, was still alive in 1999 when photographed on top of an escarpment near the mine.

"Someone killed him. We don't know who but he ended up in a jar. Now he is the only specimen left from this area and he has disappeared. If he cannot be found we will be issuing a formal subpoena for

the frog to be brought to the court."

The Timbarra Action Group claimed it had seven legal actions against the mine including two before the Federal Court.

A spokesperson for the Australian Museum said: "The collection manager is currently in New Caledonia and will be back on Monday. We will then find the frog."

Prized site for froggy eyes

Sally Haynes

A FROG'S-EYE view website has won secondary students from Western Australia a \$5000 university-sponsored prize in this year's Eureka Schools Prizes.

The prizes — \$11,000 in awards sponsored by the University of Sydney and \$10,000 by Macquarie University — are part of the annual Australian Museum Eureka awards for science.

First place in the inaugural Macquarie University Earth, Environmental and Planetary Sciences awards went to senior students at Newton Moore Senior High School in Bunbury for their "Looking good from a frog's point of view" website.

Meagan Patroni, Bradley Morgan, Cameron Denny, Nicole Crawford and Ramona Griffin designed the site for a combined biology and computer studies project.

It is based on the school's rehabilitated wetlands area — Manglangmoojupi — which was transformed in five years from a local dumping ground to a thriving ecosystem including three ponds and four breeds of resident frogs.

The site includes measurements of the health of frogs in relation to the state of the wetlands and includes monthly readings of frog populations, invertebrate growth and water quality, plus analysis of the wetland's physicochemical and biological factors.

Ms Patroni said the students

wanted to create community awareness about the progress of the school's regenerated wetlands.

The wetlands also featured in the third-placed "From a wasteland to a wetland wonderland" website by four students from years 10, 11 and 12.

The University of Sydney Prize for Biological Sciences was won by the competition's youngest entrant, Ling San Lau, 15, from Rose Bay High School in Tasmania.

She won \$5000 for her site "Exposing the true colours of Tasmanian eucalypts". Twenty-seven schools took part in the competition.

www.ausimms.com.au/eureka



THE SUNDAY TELEGRAPH, www.news.com.au October 8, 2000

CREATE HABITAT FOR FROGS

Earth Alive! BIODIVERSITY



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to all those

who contributed
to this newsletter.

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More than a million of these plants and animals are unique to Australia and the key to conserving them is to protect and restore their habitats.
Even your backyard can be a haven for life.

IT'S spring and it's time to celebrate biodiversity so we can protect Australia's native animals and plants.

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 7 pm for a 7:30pm start. **NO MEETINGS ARE HELD ON GOOD FRIDAY so check 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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