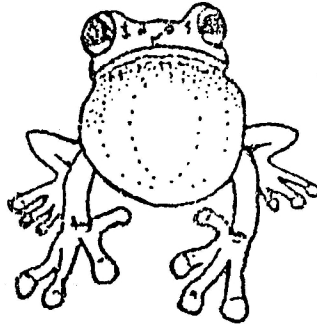


FROG CALL No 8

Newsletter of the
FROG & TADPOLE STUDY GROUP:
a special interest group of the
AUSTRALIAN HERPETOLOGICAL SOCIETY INC.



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NEXT MEETING

Tuesday 14TH SEPTEMBER time: 7.00 for 7.30 pm

Peppermint Room, Australian Museum
(cnr. of College and William Streets, Sydney East)
William St. entrance and follow the sign

News from members on their recent activities and on progress with FATS group projects.

The guest speaker - Ross Knowles:

"Conservation Genetics of Disjunct Rainforest Populations of Sphagnum Frogs"

The pre-meeting discussions between members seem to be very useful and enjoyable.

Refreshments are provided and remember the new venue and earlier time. (As Above)

DOOR FEE

The success of the \$2 charge at the door last meeting will ensure that no one is out of pocket either for the room charge or the refreshments or the cost of producing the newsletter. Thank you for your continuing support.

AUSTRALIAN HERPETOLOGICAL SOCIETY MEETINGS- AHS

HELD EVERY 4TH FRIDAY OF THE MONTH AT THE PEPPERMINT ROOM AT THE MUSEUM 7.30PM. FOR 8.00PM.

SPAWNING AT COORANBONG

YES! Michael and Leanne have spawned (as Harald called it) A boy! - he reportedly has not worked out the difference between night and day yet... Congratulations from FATS!

ENDANGERED FROG STUDY

The Funds are now available.

Basic work identifying key sites is complete thanks to Shane and Harald Ehmann. All info should be ready in the next 2 months for this years field work

NP&WS general Licence is being pursued as well as an Animal Ethics Licence.

Fats group members have formed basic groups for surveying. 15c a kilometre will be available for 1 driver per trip. Each group must be made up of 3-5 and have at least one person in the group considered to be "experienced". We now have access to weather information a week in advance so the trip can be planned.

Thanks to NISSAN AUSTRALIA for the use of a 4-WD for NOV1-14th (On condition that Mike Tyler does not drive!)

Thanks to John Barker for releasing part of the "Frog Calls of S.E. Australia" (Barker and Grigg 1983) for Endfrogs use.

Thanks to Angus Adair for water and air quality data.

FROGWEEK

Shane has a letter to send to Nestle products (Butter Monthols) and Cadbury Schweppes with a suggestion to change their blue and gold freddo frog wrapper to a green and gold one - for obvious reasons

Dan has contacted the CSIRO's Double Helix Club and Streamwatch and both are excited about frogweek (We wish someone would be a little more excited and give us some funding!).

Frogwatch, which was originally designed to correlate with Froweek, is changing format at the Museum and so is delayed. Returns from schools are also slow.

THE RAFFLE

So many people turned up that Dan offered to extend his raffle prize not only to FATS but also to the AHS - Martyn Robinson won our draw.

WORLD CONGRESS OF HERPETOLOGY

The 2nd World Congress for Herpetology (\$395) payable by 31.10.93

The 29th Dec 1993 theme Day is entitled "Herpetoculture, Zoos and Private Herpetology". This is for people who don't necessarily have qualifications, but work in the field anyway, (covering captive care and husbandry.)

Included is a visit to what will be the largest Herpetological display in Australia- NARAMA (means Rainbow Serpent)-at the Motor Pavilion the Adelaide Showgrounds. \$40 for this day only.

The AAHS is trying to organise a scholarship for people who could not normally go. One scholarship per Herp. society. The recipient must be an active and participating member of the AHS who would be financially unable to attend the conference.

THE LAST MEETING: 20.7.93

Apologies from Lothar Voigt frogging in North-West Australia... Sorry if you have sent Lothar something to be included in this newsletter but that information is currently tied up in his letter box and will not be available till he comes back! He'd better have a really good talk and set of slides to make up for this absence.

VIDEO

we watched a video of the presentation by Graeme Watson for Melbourne University- a frog survey of the Northern Territory

sent by the Victorian FATS

70 min.

DESCRIPTION OF AREA SURVEYED

Weather

The area is called the wet/dry tropics because of rainfall patterns. Heavy rain can cut roads leaving people stranded for days but the water level can fall as quickly as it rises.

A typical day:

8.30am, 28-30°C clear.

12 noon clouds build up, 35-45°C

3.00 pm downpour of rain and floods

5.00 clear again

Vegetation

Usually flat woodland with tall grasses, surrounded by escarpment cliffs and scree slopes.

April/June vegetation dries off and fires occur.

(Fires now tend to be man-made and do a lot of damage)

Frog habitat

Possible frog sites are common but infested with fish-including the Ord River Dam and billabongs

Major frog habitats include ponds which develop on slopes or on the top of cliffs

Ephemeral ponds form over grasslands which are the main breeding sites but these dry up quickly. Some man-made sites such as ditches and drains are used but only if there are no fish.

Frog Fauna Survey

No of species identified has increased

e.g. **Cyclorana** sp 1920's- 4 species. 1992- 12 sp.

Uperoleia sp. 1920's- 6 sp. 1992- 23 sp.

Patterns of distribution

Some species widely distributed e.g. **Cyclorana australis**

Some species are geographically or habitat restricted e.g. **Litoria splendida** on rocky scree slopes or human buildings only.

Uperoleia trachyderma only on black soils occurring in only a few places

Uperoleia inundata only on flooded grasslands but widely spread.

Groote and Melville Islands survey

Why were some species present or absent?

C. australis was not present but abundant on the mainland

Litoria forsteri sparse on mainland but abundant on Groote.

Melville Island has some tropical rainforest but there is only one species of rainforest frog. **Sphenophryne adelphe**, which has a high pitched call similar to a cicada.

Pond study

The role of tadpoles in ephemeral ponds was studied over 2 (1986-1987) years using different types of pond sites.

- A) "Grotty pond" blacksoil large pond 25cm+ deep
- B) "Pristine pond" Gravel pond shallow
- C) "Granite pond" in Argyle district W.A. small pond 12cm deep
- D) "Dump pond" 75cm deep

Water levels fluctuated greatly over as little as 1 hour

Surface temperatures were up to 44.5°C

Temperatures fluctuated 27°C- 44.5°C in the space of one hour especially with rain.

O₂ levels very low at dawn (27°C) rising to saturation at higher temperatures indicating photosynthesis by phytoplankton.

The larger ponds were generally more alkaline and saline and the small ponds had almost no salt and were acidic.

Cyclorana australis -tadpoles were 2200 plus per square meter. A survey of the pond revealed that predation on tads was huge. Tads were the basic food source for most animals/birds in the habitat.

Out of this talk came the suggestion that the tropical tad. may be easier to keep and raise because of their adaptation to a widely fluctuating environment. It was suggested that aeration was essential to compensate for the lack of phytoplankton.

CANE TOADS

A one page article (with lots of photos) appeared in the last Underwater Geographic magazine about the comparison of Cane Toad tadpoles and metamorphs to other species which may be confused with them. I presume this is for the golfers among us.

PSEUDOPHRYNE AUSTRALIS

The first court case involving a development site where P. australis was located is being contested. We are eagerly awaiting results. The Judge's question as to how to save the frogs if the development went ahead would seem, from our point of view, rather naive.

HELEIOPOROUS AUSTRALIACUS

Maximum length of tadpoles -85mm

Length of body -27mm

85 days before first metamorphosis, left water (1cm tail remaining)

Several of the tadpoles had definite s-bends in their tails. All tadpoles underwent metamorphosis even those with extreme bends. The frogs appeared to be normal. There seem to be three theories about this:-

- 1) The presence of nematodes.
- 2) Extremes of temperature in the early stages, either in egg or newly hatched.
- 3) Abnormally fast growth rate.

Has anyone got any other ideas? and has anyone seen this in wild tadpoles?

CORRECTIONS TO NEWSLETTER 7

Lost and found -Litoria ewingii should read Litoria verreauxii

A thought - If the Frog And Tadpole Study Group is FATS then the organiser is FATSO.

A Quote- Izaak Walton 1593-1683

Thus use your frog ... Put your hook through his mouth, and out his gills; ... and then with a fine needle and silk sew the upper part of his leg, with only one stitch, to the arming-wire of your hook; or tie the frog's leg, above the upper joint, to the armed-wire; and in so doing use him as though you loved him.

From ' The Complete Angler ' [1653-1655], pt.1, ch. 8.

Shane is editing the newsletter until Lothar returns. So you can blame it all on him

STAMPS

If you live out of town and cannot attend our meetings, all you need to do to stay in touch is to send eight 45c stamps to Jacquie Recsei - with address details enclosed. She will remind you when you need to send more with a small frog stamped on the top of your newsletter.

Jacquie Recsei
14 Wallace Close,
Hornsby Heights, 2077.