

FROG CALL



THE FROG AND TADPOLE STUDY GROUP NSW Inc.

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NEWSLETTER No. 124 April 2013

Ornate Burrowing Frog, Castlereagh Nature Reserve



Photo by Peter Spradbrow, field trip leader February 2013

Amphibian fauna book /internet returns are due by 30 April

Arrive 6.30 pm for a 7pm start.

Friday 5th April

**FATS meet at the Education Centre,
Bicentennial Pk, Sydney Olympic Park**

Easy walk from Concord West railway station and straight down Victoria Ave.

By car: Enter from Australia Ave at the

Bicentennial Park main entrance,

turn off to the right and drive

through the park. It is a one way road.

Or enter from Bennelong Road / Parkway.

It is a short stretch of two way road.

Park in p10f car park, the last car park

before the exit gate.

MEETING FORMAT Friday 5th April 2013

6.30 pm There are only a few lost frogs needing forever homes with FATS members. Contact us before the meeting to confirm if any frogs are coming to the meeting. Please bring your FATS membership card and cash \$40 - \$50 donation. Your NSW NPWS amphibian licence must be sighted on the night. Rescued frogs can never be released. Sorry we have no EFTPOS on the night.

7.00pm Welcome and announcements.

7.30 pm Main speaker: Grant Webster
Is being a yellow male frog, an advantage ?

9.00 pm Show us your frog images, tell us about your frogging trips or experiences, guessing competition, continue with frog adoptions, supper & a chance to relax and chat with frog experts.

CONTENTS

PAGE

- Last meeting – main speaker :
Eric Vanderduys
Qld frog field guide 2
- Emily Stratins 2 6 7 & 10
- Smith's Lake field trip report
- AGM August 2013
- Better Planning Network
- Marion Anstis new book
"Tadpoles and Frogs of Australia" 3
- Frog-O-Graphic competition
- Frogs of Stroud poster 4
- Prof Michael Archer's work on
extinct Gastric Brooding Frog 5
- FATS at Royal Easter Show
- Pesticides and court case 8
- Grant Webster's award at ASH 9
- Herpdigest
- Committee contacts and map 11
- FATS Field trips and reports 12

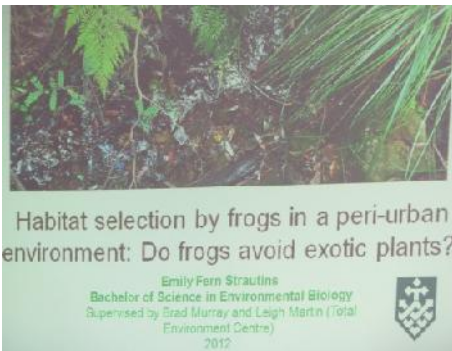


Photos on this page by Phillip Grimm

We were very fortunate to have Eric Vanderduys writer of "Field Guide to the Frogs of Queensland" 2012 as our main speaker. Thank you George Madani for organising this opportunity with such little notice. Like many of our speakers Eric is a gifted presenter and entertained us with background stories behind his book. All copies available on the night quickly sold out.

Emily Stratins spoke about her honours work, Do frogs avoid weeds? Thank you Emily for the excellent images and description of the frogs studied ground cover and vegetation issues, correlations between urbanisation and frog declines, diverse habitats and the implications for frogs, bush regenerators and town planners.

Jilli Streit spoke about FATS last field trip at Smith's Lake. The remaining photos and the Darkes Forest field trip photos will be in June Frogcall.



Arthur White and Emily Stratins

SMITH'S LAKE FIELD TRIP REPORT 23 NOV. 2012

I was not surprised when I heard that several of the FATS Field Trippers had checked out the local camping spots - we had thought of it ourselves. Smith's Lake is like that, a place that is hard to leave - somewhere you can't wait to come back to. For some FATS members it has been an annual pilgrimage. They have been returning to the University Field Station at Smith's Lake every year for decades. And for some, there is no leaving - it is a place of eternal rest.



Jilli Streit – FATS Field trip to Smith's Lake November 2012

The Field trip for 2012, although too dry and cool to be ideal for frogging, was still a fabulous excursion. Over 2 nights we identified 10 species of frog. There were more than 50 species of birds spotted and reptiles included a land mullet, a lace monitor, and a water dragon. On Saturday afternoon, we saw a pod of dolphins playing in the waves in the bay at Seal Rocks and the lucky ones also saw three humpback whales breaching close to the Seal Rocks lighthouse.

Typically, around 25 FATS members make it to the study trip at Smith's Lake each year. By Friday night, most of the 2012 contingent had already arrived at the Field Station. After dinner, with our cameras and our wits about us, we eagerly squashed into four cars and followed the leaders, Arthur and Karen White, to Treachery Swamp. Although, this year, the frog activity there was not intense, we were still able to identify the presence of *Litoria jervisiensis*; *Litoria tyleri*; *Pseudophryne coriacea*; *Lymnodastes peronii* and *Adelotus brevis*. Continued on page 6, 7 and 10.



FATS AGM NOTICE 2 AUG.

The FATS AGM will be held on 2nd August, commencing 7pm. FATS meet at the Education Centre, Bicentennial Park, Sydney Olympic Park. If you would like to ask questions about joining the FATS committee, please give us a call. Contact our secretary, committee members or myself for further information. See contacts on page 11. **Arthur White**

FATS HAS JOINED BPN THE BETTER PLANNING NETWORK

In good faith, the FATS committee has chosen to support the Better Planning Network on behalf of our society and to advance the protection of frog habitat by joining like minded groups who are concerned about protecting our natural heritage. Amongst many land planning issues, BPN is concerned about government recognition for the protection of urban bushland, the removal of environmental protection mechanisms such as State Environmental Planning Policies, their replacement with non-statutory instruments and the overall emphasis on the need to fast-track development across NSW, at the potential cost to the environment.

The BPN was formed in 2012. It is a coalition of over 330 community groups calling on the NSW Government to recognise that the community is a key stakeholder in the land planning reform process. Some of the groups that support BPN are: National Parks Association of NSW, the Australian Plants Society NSW, Bankstown Bushland Society, Inner West Environment Group, Mosman Parks and Bushland Association inc., Northern Rivers Guardians inc., NSW Nature Conservation Council, NSW Wildlife Council inc., The Wilderness Society Sydney inc. and Wildlife Preservation Society of Australia inc..

The outcome of the current State planning review will affect Sydney suburbs, regional centres and country towns. Community engagement in decision-making is essential at every stage of the land planning and development process. Protecting our natural heritage is fundamental to the wellbeing of our communities, native fauna and flora. Strategic planning must be evidence-based. The State Government's White Paper on the planning reform and future legislation needs to hear from advocates for environmental protection of bushland, waterways and habitats. **For info. call Corinne Fisher 0421 831 889.**
<http://betterplanningnetwork.good.do/nsw/petition-state-parliament/> <http://betterplanningnetwork.good.do/>
<http://www.facebook.com/BetterPlanningNetwork/>
betterplanningnetwork@gmail.com

FATS STUDENT GRANTS

Since 2008, FATS has offered small grants to students to assist with the cost of frog related study and research. If you are interested please contact Arthur White on 9599 1161 or 1arthur@tpg.com.au for further information.

TADPOLES AND FROGS OF AUSTRALIA

Marion Anstis' book due out later this year "Tadpoles and Frogs of Australia" will be THE reference book on Australian frogs and worth every cent. Please email Marion ASAP at frogpole@tpg.com.au if you wish to receive details of how to order this book. The initial printing of 500 will be a special numbered collector's edition signed by the author, and standard copies may be printed after that. Collector's edition price uncertain, but likely to be \$150-

\$200. If enough requests are received, there may follow a print run of the standard copies, so your expression of interest is important at this stage.



A definitive reference work on the life histories of Australian Frogs will be available by mid-2013. The book covers all adult frogs and includes illustrated descriptions of the eggs, tadpoles and metamorphs of most species and keys to tadpoles and embryos. Approx. 820 pp. and full colour throughout including over 3060 images. Over 500 drawings and most photographs are by the author, with additional contributions from 68 other photographers. Distribution maps by Dan Rosauer and Cody Schank. A must-have book for amateurs, students and professionals both in Australia and overseas.

If interested in receiving advanced information about this book on publication, please provide email/phone contact details on attached list.

Tadpoles and Frogs OF Australia

Marion Anstis



“

The scope and depth of this study is exceptional. Its extensive use of colour illustrations, prolific information on development and considerable information on ontogenetic and likely geographic variation makes it far outstrip all others and sets the bar at a position that probably will never be surpassed. Knowledge of Australian frogs will likely always stand above that of faunas from all other sites.The publisher, too, needs some accolades also – to publish this many colour photographs and voluminous text!

Ronn Altig



“

This book could remain quite possibly the most outstanding single contribution ever made to the knowledge of Australian frogs. It is highly original, extremely thorough, beautifully presented, makes a massive contribution to knowledge in the area, and is extremely appropriate for publication. I very much enjoyed reading it and look forward to seeing the final version in print.

Ross Alford

“

It would be remiss of a reviewer not to commend the author on the outstanding quality of the illustrations, especially that of her line drawings of the eggs and larval stages. These have been beautifully executed and go far beyond aesthetics by contributing greatly to the reader's interpretation and understanding of the character states illustrated. Similarly her photographs of eggs and tadpoles are the best and most comprehensive suite of images of a continental frog fauna anywhere in the world.

Hal Cogger



2013 FROG-O-GRAPHIC COMPETITION

FATS have many creative people in the group who take marvellous photos, do incredible drawings and art works, can sculpt, potter or create frog do-dahs from just about anything. Here is your chance to show off your skills.

There are several categories in this year's competition for members: A new Pet or Wild frogs (adult & junior), Best Frog Image (adult & junior), Most Interesting Frog Image (adult & junior), Best Frog Artwork (adult & junior) and the People's Choice award. All but the People's Choice award will be selected by a specifically hand-picked panel of judges and announced in October. The People's Choice will be decided by the audience at the October meeting.

Maximum six entries per person. Email entries to photos@fats.org.au Please include in the email a FATS membership confirmation, your name, age if under 18, whether pet or wild frog and contact number for all entries. Maximum attachment size 6 MB. Fabulous prizes for each winner. The winning entries may be featured in a colour supplement in Frogcall. Entries may be submitted from 5/4 until the 31/7/2013. We look forward to see your entries. All winners will be announced at the October 2013 meeting. **MW**

FROGS OF STROUD

Frogs are fascinating creatures! Australia has a large diversity of frogs numbering around 230 different species, and quite a range of these occur here in Stroud. This poster has been created by us 'froggers' to showcase what species we are studying, what frogs occur around your home, and hopefully to aid you in identifying these great little critters.

As amphibians, frogs are amongst the only vertebrates (animals with back bones) that start life in one form, then change to another. In a process called 'metamorphosis', those small black tadpoles you may find in your dams, down at the stream, or even in temporary puddles, will eventually grow into the many colourful frogs found around Stroud. Frogs rely on water and moisture to develop and survive, and that's why you probably don't see (or hear) many around in dry periods. Because of this close association with water, their populations can be a useful indicator of the health of the surrounding ecosystems. This means that if waterways become polluted or habitats altered in other ways, frogs will be some of the first animals to feel the impacts. That is one of the reasons why it's worth studying frogs!



TUSKED FROG, *Adelotus brevis*
A medium-sized, bumpy-backed, brown frog with a large head. The belly is black with white blotching and there is red marbling in the groin. Found in forests and associated with rocky creeks where they call from under rocks and logs. Males have large 'tusks' on the lower jaw used in combat. The call is a soft 'brmp'.



COMMON EASTERN FROGLET, *Crinia signifera*
A small, highly variable, brown frog. Found in a variety of habitats including disturbed areas such as ditches, dams, water filled wheel ruts and ponds. Call is a repeated 'crik crik crik'.



SANDPAPER FROG, *Lechriodus fletcheri*
These medium-sized frogs range from reddish-brown through to mustard yellow. Known as Sandpaper Frogs due to the rough granular texture of their skin. A rainforest inhabitant, found on leaf litter close to water. Call is a stuttered, drawn out 'Gan-rip'.



STRIPED MARSH FROG, *Limnodynastes peronii*
A common medium-sized frog. Grey brown above with a number of stripes along the back including a prominent pale cream stripe down the centre. The loud 'tok' is commonly heard whilst males float in water especially in backyard ponds and dams.



SPOTTED MARSH FROG, *Limnodynastes tasmaniensis*
A common, small to medium-sized, olive-green frog with irregular blotches and, occasionally, a yellow stripe running down the back. Abundant, particularly around farm dams and flooded paddocks. Call is a repeated machine gun like 'uk-uk-uk-uk'.



STUTTERING FROG, *Mixophyes balbus*
A large brown frog with indistinct bars on the hind legs. Distinguished from other barred frogs by the presence of a light blue crescent under the upper eyelid. Often found camouflaged amongst leaf litter along rocky creeks in rainforest. Call is a soft grating trill, 'Op op op op, ah ah ah ah'.



GREAT BARRED FROG, *Mixophyes fasciolatus*
A larger coppery brown barred frog with well defined thin bars on the hind limbs which form small dark triangles on the base of the thigh. These ground-dwelling frogs are found near ponds and creeks where their loud 'Wark' call can be heard. They occasionally call while hidden beneath loose soil and leaf litter.



GIANT BARRED FROG, *Mixophyes iteratus*
The largest and most beautiful of the barred frogs in the area. Pale brown with scattered small darker brown blotches. Easily distinguished by the bright metallic golden eye. Found along the banks of sheltered creek lines sitting amongst leaf litter. Call is a low soft 'ork'. Known to attract froggers in large numbers to nearby small towns.



BROWN TOADLET, *Pseudophryne bibronii*
A small brown toadlet, boldly marbled black and white on the belly. A yellow spot is found on the vent and in the armpits. Once common in forests and heathlands they are now less common. The short, slightly sharp 'ark' call can be heard coming from their nests under rocks, logs and in tunnels in damp areas.



RED-BACKED TOADLET, *Pseudophryne coriacea*
As the name suggests, these toadlets (not real toads) have a rich red back. Their sides are a contrasting black and the belly is boldly marked with black and white. Males call from hidden nests, buried under soil and leaf litter where the males may guard their eggs. Their squelchy 'ark' call can be heard from roadside ditches, soaks and temporary watercourses near forested areas.



SMOOTH TOADLET, *Uperoleia laevigata*
A small, drab grey-brown frog that is somewhat warty. Reddish patches are found concealed in the groin and behind the knees, and most individuals have a pale triangular patch on the head. Found in woodlands and grasslands where they breed on the edges of dams and wet grasslands. Call is a nasal 'ark'.



MOUNTAIN STREAM TREE FROG, *Litoria barringtonensis*
Very similar to the Green Stream Frog (*Litoria phyllochroa*). Most easily distinguished by the presence of small black spots on the back which may not always be present. Males call from low vegetation on the banks of rocky creeks. Call is a 'reeek-wuk-wuk'.



GREEN TREE FROG, *Litoria caerulea*
A well known, bright and large green frog. Known to frequent toilets, laundries, shower blocks and downpipes. Will breed in temporary shallow water bodies such as flooded grasslands, ponds and ditches. Call is a loud repeated 'crawk, crawk, crawk'.



RED-EYED TREE FROG, *Litoria chloris*
A moderately large green tree frog with red eyes and purple on the back of the thighs. They spend most of their lives high up in the canopy only descending to breed after heavy rain on warm nights. Found in rainforest and other well vegetated habitats. Call is a series of long moans followed by soft trills, 'Waa-waaaaah - pri-pri-pri'.



GLUCESTER TOPS FROG, *Litoria daviesae*
This moderately sized frog comes in various forms of golden brown with irregular green patches on its body. They are only found above 400m along well vegetated streams and rocky creeks. Only known from about 10 locations in the Gloucester Tops Barrington Tops national park area. The call is a slow low pitched 'orak orak orak' heard from low perches above the water.



BLEATING TREE FROG, *Litoria dentata*
A small cream coloured tree frog. A broad dark brown band runs down the back. The upper part of the iris is red. Occurs in woodlands but also found around houses. Breeding occurs in temporary ponds and still water bodies. The 'eeeeerrrr' call is a loud, plaintive bleat which can often be heard on hot summer days.



EASTERN DWARF TREE FROG, *Litoria fallax*
A tiny, slender green frog that can also turn a faint brown. They call from reeds, grass and lily pads around farm dams, ponds and swamps. The call is a 'reek-pip-pip'.



BROAD-PALMED ROCKET FROG, *Litoria latopalmeta*
A moderate-sized pale brown to grey ground dwelling frog. A black stripe runs along the side of the head from the snout to the flanks, interrupted just in front of the eye by a vertical white bar. Found in a variety of habitats often away from water but also on the edge of dams. The call is a rapid, accelerating quacking.



PERON'S TREE FROG, *Litoria peronii*
A moderate to large tree frog. Generally grey-brown, with irregular mottling and emerald green flecks scattered on the back. The inside of the thighs are strongly marbled black and yellow. Very common and found in most habitats. Call is a drawn-out, growling cackle.



GREEN STREAM FROG, *Litoria phyllochroa*
A small bright green frog with a thin gold stripe, underlined with black leading back from the eye. Heard calling from low vegetation above flowing streams in forests. The call starts with a whirring 'eerk eerk eerk' followed by trills.



LAUGHING TREE FROG, *Litoria taylori*
Very similar to Peron's Tree Frog (*Litoria peronii*). Distinguished by yellow and brown marbling in the back of the thighs (as opposed to black and yellow in *L. peronii*). Breeding males are generally bright yellow. Inhabits forests and will breed in ponds and dams. Call is a stuttered chuckle.



WHISTLING TREE FROG, *Litoria verreauxii*
A small, variable brown frog. A broad faint band passes down the back and a dark stripe extends through and past the eye. The groin and inner thighs are orange with black blotches. Occurs in most habitats near water. Call is a repeated whistling 'weep-weep-weep'.



STONY CREEK FROG, *Litoria wilcoxii*
Males are a moderate size and females much larger. Males are grey brown, though very bright yellow all over when breeding, while females are a light to rich chestnut brown. Often found perched on stones or logs along rocky flowing creeks in most habitats. Call is a soft purring gurgle.

THREATENED SPECIES STATUS Environment Protection and Biodiversity Conservation Act, 1999 (Commonwealth) **E** Endangered **V** Vulnerable
Threatened Species Conservation Act, 1995 (NSW) **E** Endangered **V** Vulnerable

This poster was designed by members of the Giant Barred Frog monitoring team and colleagues. Thanks go to: Markus Adamczak, Sara Adamczak, Megan Bottom, Peter, Alex Dudley, Graeme Fitzelson, Chris Jolly, Alan, Keith, Clive, Lifford, George Hudson, Andrew Johnson, David Nelson, Paul Parkin, James Schickel, Bobby Timpao, Sam Travers and Georgia Ward-Pear. All rights reserved. No part of this poster may be reproduced without the prior consent of the authors and publisher.

EXTINCT FROG HOPS BACK INTO THE GENE POOL (EXTRACTS) Professor Michael Archer: determined to bring the species back to life.

In what may be considered an early Easter miracle, an extinct species of native frog has begun its rise from the dead. Australian scientists have grown embryos containing the revived DNA of the extinct gastric-brooding frog, the crucial first step in their attempt to bring a species back to life.....The project would have remained a science fiction fantasy were it not for the foresight of Adelaide frog researcher, Mike Tyler, who froze a gastric-brooding frog specimen before it disappeared from the wild in 1979 and became extinct in 1983. 15/3/2013 by Nicky Phillips

<http://www.smh.com.au/environment/animals/extinct-frog-hops-back-into-the-gene-pool-20130315-2g68x.html#ixzz2ORrnHXp9>

FATS AT THE 2013 ROYAL EASTER SHOW

The 2013 Sydney Royal Easter Show Frog & Reptile competition will be held on 2 and 3 April. FATS will be represented there both days at the Wynne, Domestic Animals Pavilion (former cat pavilion No 10) map reference T12, near the rides and on the corner of Grand Parade and Hawkesbury Street. More information can be found at www.wildexpo.com.au MW

Photo by Jilli Streit



2012 FATS field trip - Smith's Lake in the early morning

FROGS OF STROUD POSTERS FOR SALE

Over the last couple of years several members of FATS have been involved in monitoring the local Giant Barred Frog (*Mixophyes iteratus*) population from in and around the tiny farming community of Stroud. This little valley along the Buckett's Way has a surprising number of native frog species. The froggers, who arrayed in their peculiar attire of rubbery gumboots, bright rain coats and oversized head torches mounted on their heads commence their exodus each night to nearby creeks and rivers while perplexed residents look on bemused. Naturally the curiosity of the locals has been aroused! In an effort to help answer some of their questions and to raise awareness about the local neighbourhood

frogs, a poster entitled 'The Frogs have Stroud' has been produced. Each of the twenty-three species to be found within the region has been superbly photographed with accompanying species profiles, covering notes on habitat preferences, physical identifying characteristics and calls. A limited number of copies are being made available to FATS members. A1 in size and in full colour these posters will be for sale at the next meeting for \$13 each. **George Madani**

443 FATS FACEBOOK FRIENDS AND GROWING

Some of the many recent and interesting posts on FATS Facebook page are listed below. We have members from all over the world:

<http://www.australianmuseum.net.au/blogpost/Science/Hot-bodies-protect-frogs-from-disease> posted by Dr Jodi Rowley Australian Museum

<http://www.scribd.com/doc/118024819/Insect-attacks-on-Amphibians-Sri-Lanka> posted by Sameera Suranjan Karunarathna from Sri Lanka.

<http://tedxdeextinction.org/> A post by Will Ward of Australia and others, about Mike Archer's Gastric Brooding Frog project (above left) which lead to comment by Corey W, senior university research assistant, from USA "One of the scientists of this project actually talked about this at a Tedx Webinar on DeExtinction hosted by National Geographic Society here in Washington DC, USA

<http://www.facebook.com/TedxDeextinction>, talks will be posted online soon. One of the more interesting things about this I realized during the talks is that while all this deextinction technology sounds horrifically expensive, most of the funding for it is not from conservation groups but rather projects funded because of how some of this work can be used for, was originally developed for, or benefit, humans. In this case there is a huge amount to be learned about the Gastric Brooding Frog that can be useful in human health areas so much of the funding to bring this animal back from extinction and captively produced can actually be funded by those methods. From there reintroduction projects and what not would likely be funded by more traditional conservation methods, but it's nice to see alternative revenue streams for funding conservation/deextinction work."

George Madani posted a wonderful video clip http://www.youtube.com/watch?v=1Zs1k-L_jEQ Amazing foot flagging behaviour by *Stauroids latopalmatius*

New member Nathan Litjens posted a great video clip on *Metaphrynella sundana*, the treehole frog of Borneo is finding the right way to call <http://youtu.be/g3Yp7w7zsRQ>

FATS Facebook friends: Inner West WIRES, people and groups from all over Australia, organisations and frogophiles from Columbia, Russia, South Africa, El Salvador, Belgium, Brazil, Florida, California and Bolivia to name just a few. **MW**

SMITH'S LAKE FIELD TRIP 2012



Sacred Kingfisher Smith's Lake field trip
Photos above and below by Marion Anstis
Kookaburra and nest 2012



Photos above, right & below compliments of Phillip Grimm
Eastern dwarf tree frog - *Litoria fallax* calling



White-cheeked Honeyeater Smith's Lake
Photos above & below by Marion Anstis
Wood Swallow on nest FATS field trip



COURT HEARING FOCUSES ON WHETHER EPA MUST PROTECT HUNDREDS OF ENDANGERED SPECIES FROM PESTICIDES

A Federal district court in San Francisco will hear arguments today in the most comprehensive legal action ever brought under the Endangered Species Act to protect imperilled animals from pesticides. The Center for Biological Diversity and Pesticide Action Network North America are challenging the Environmental Protection Agency's failure to assess the impacts of hundreds of pesticides known to be harmful to more than 200 endangered and threatened species. Today's hearing addresses motions filed by the EPA and pesticide industry groups to dismiss the lawsuit.

"For decades, the EPA has turned a blind eye to the disastrous effects pesticides have on some of America's rarest species," said Jeff Miller, a conservation advocate with the Center. "We're trying to make sure the EPA does its legal and moral duty to make sure harmful chemicals aren't sprayed in the same places where these vulnerable wild animals are trying to survive."

The lawsuit seeks protection from harmful pesticides for 212 endangered and threatened species throughout the United States, including Florida panthers, California condors, piping plovers, black-footed ferrets, arroyo toads, Indiana bats, bonytail chubs and Alabama sturgeon. Documents from the U.S. Fish and Wildlife Service and EPA, as well as peer-reviewed scientific studies, show that these species can be harmed by the more than 300 pesticides at issue.

Despite the well-documented risks of pesticides to hundreds of imperilled species, for decades the EPA has "registered," that is permitted pesticide uses, without required consultations with expert federal agencies to properly study their impacts. This noncompliance prevents the Fish and Wildlife Service and National Marine Fisheries Service from evaluating pesticide risks and restricting pesticide uses known to be harmful to protected species.

After the filing of this lawsuit in 2011, the EPA and the two federal wildlife agencies requested that the National Academy of Sciences' National Research Council examine the agencies' joint responsibilities under the Endangered Species Act and provide recommendations regarding how best to complete the consultation process under the Act. The final Academy report is expected this month. Today's hearing, before Magistrate Judge Joseph C. Spero, will be at 9:30 a.m. at 450 Golden Gate Avenue, Courtroom G – 15th Floor, in San Francisco. The hearing is open to the public. Center attorney Collette Adkins Giese will be available after the hearing to discuss the case. To arrange an interview, please call (651) 955-3821.

Background: More than a billion pounds of pesticides are used annually in the United States, and the EPA has

registered more than 18,000 different pesticides for use. Extensive scientific studies show widespread and pervasive pesticide contamination in groundwater, drinking water and wildlife habitats throughout the country.

Many EPA-approved pesticides are linked to cancer and other severe health effects in humans. Some pesticides can act as endocrine disruptors, interfering with natural hormones, damaging reproductive function and offspring, and causing developmental, neurological and immune problems in wildlife and humans. Endocrine-disrupting pesticides cause sexual deformities such as intersex fish (with male and female parts) that cannot reproduce. Scientists believe that pesticides may also play a role in colony collapse disorder, the recent mass disappearance of bees that are agriculturally important pollinators.

A new scientific study published last month shows that rapid declines of grassland bird species in the United States are strongly correlated with insecticide use. Scientists found that collapsing populations of grassland birds are strongly linked to use of lethally toxic insecticides. There has been widespread opposition to the EPA's approvals without adequate review of a new generation of nerve-agent insecticides called "neonicotinoids," which are linked to die-offs of honeybees.

An example of the EPA's failure to protect people and the environment is the re-registration of the dangerous herbicide atrazine, a widespread pollutant of groundwater and drinking water in this country. Atrazine, which causes reproductive problems and chemically castrates male frogs even at extremely low concentrations, has been banned by the European Union. Recent research links atrazine to cancer, birth defects and endocrine disruption in humans, as well as significant harm to wildlife. A series of lawsuits by the Center and other conservation groups has forced the EPA to consult on the impacts of scores of pesticides on some endangered species, primarily in California, and resulted in temporary restrictions on pesticide use in sensitive habitats. The litigation now before the court is the first with a nationwide scope, as it seeks Endangered Species Act compliance for hundreds of pesticides on hundreds of species across the country.

Contact: Jeff Miller, Center for Biological Diversity, (415) 669-7357 15/3/13 San Francisco. From HERPDIGEST Volume # 13 Issue # 10 HerpDigest is the only free weekly electronic newsletter that reports on the latest news on herpetological conservation, husbandry and science Publisher/Editor- Allen Salzberg. HerpDigest is a 501 (c) 3 non-profit corporation, based in New York State. It is a publication, independent of any government public or private agenda, and reflects only the editor & opinion of what is news in the herp world. It is now in its 13th straight year of publication. To subscribe go to www.herpdigest.org and sign up.

IS A MALE FROG BEING YELLOW AN ADVANTAGE? STRESSED-OUT TADPOLES GROW LARGER TAILS TO ESCAPE PREDATORS (extracts)

The Australian Society of Herpetologists (ASH) conference at Point Wolstoncroft at Lake Macquarie in January awarded Grant Webster the prize for best student presentation amongst all honours and masters students, for his work on colour change in frogs. Well done Grant! (Photo from <http://whitinglab.com/?p=3962>)



STARRY FROG IS NOT EXTINCT AFTER ALL!

In 1853 Edward Frederick Kelaart, a physician and naturalist, collected a strange frog on the island of Sri Lanka then a British colony known as Ceylon. The specimen was a large shrub frog (about 2 inches or 5.5 centimeters long) with black-outlined white specks on lime-green skin. He dubbed it "starry" after its pale specks, but that was last anyone heard of it. Even the holotype (the body of the amphibian collected by Kelaart) went missing. Fast forward nearly 160 years, two world wars, Sri Lanka's independence, and a man on the moon, when a recent expedition into Sri Lanka's Peak Wilderness rediscovered a beguiling frog with pinkish specks.

"These quite stunning frogs were observed perched on leaves in the canopy. They were slow moving, we collected samples which we thought were new species. But after reviewing past work, [especially] extinct species, it was evident that this was *Pseudophilautus stellatus*," L.J. Mendis Wickramasinghe told mongabay. Kelaart's starry shrub frog, or *Pseudophilautus stellatus*, had been re-discovered.

Wickramasinghe, the lead author of the paper announcing the discovery in *Zootaxa*, says one reason why the starry shrub frog remained undetected for so long was its habitat. "We worked in [parts of the Peak Wilderness Sanctuary] where previous studies had never taken place, in tough and rugged conditions, so hardly any researchers had actually gone to these sites," he explains. In all the scientists identified 78 individuals during their surveys, but given its scarcity and likely small habitat, Wickramasinghe believes the species should be listed as Critically Endangered. The species is currently imperilled by expanding tea plantations, illegal gem mining, pollution from religious pilgrims, and forest dieback. [Monogobay.com](http://mongabay.com) 8/3/13 Herpdigest V13#9

When people or animals are thrust into threatening situations such as combat or attack by a predator, stress hormones are released to help prepare the organism to defend itself or to rapidly escape from danger -- the so-called fight-or-flight response. Now University of Michigan researchers have demonstrated for the first time that stress hormones are also responsible for altering the body shape of developing animals, in this case the humble tadpole, so they are better equipped to survive predator attacks

The team's surprising findings are detailed in a paper to be published online March 5 in the journal *Proceedings of the Royal Society B*. First author of the paper is Jessica Middlemis Maher, a former U-M doctoral student, now at Michigan State University, who conducted the work for her dissertation.The term "phenotypic plasticity" is used to describe modifications by animals and plants in response to a changing environment. The study involved wood frog tadpoles and the stress hormone corticosterone, which is similar to the human stress hormone cortisol. Tadpoles were collected from ponds at U-M's E.S. George Reserve in Pinckney, Mich., northwest of Ann Arbor....

"A key finding was showing that you could eliminate the effect of the alarm pheromone on tadpole body shape by blocking the production of the stress hormone," Denver said. "If you block production of the animal's hormone and it inhibits the change in tail size, then that's a powerful argument that the production of corticosterone is physiologically important for the morphological change." In another experiment, tadpole tails were placed in a petri dish containing corticosterone. Over the course of several days the tails grew larger, suggesting that the hormone was acting directly on the tail to make it grow

In another set of experiments, normal-tailed tadpoles and large-tailed tadpoles produced by exposure to corticosterone or alarm pheromone were placed in tanks containing uncaged dragonfly larvae, which were allowed to attack the tadpoles. The large-tailed tadpoles had a higher survival rate than their smaller-tailed neighbours. The third author of the *Proceedings of the Royal Society B* paper is Earl Werner, director of the E.S. George Reserve and a professor in the U-M Department of Ecology and Evolutionary Biology.

All experiments were conducted in accordance with the guidelines of the University Committee on the Use and Care of Animals at the University of Michigan. The work was supported by the U-M Department of Ecology and Evolutionary Biology and by several grants from the U.S. National Science Foundation. 5/3/13 Herpdigest V13#9

Michelle Toms –
Saltuarius moritzi Moritz Leaf-tailed Gecko



Many photos were taken by Michelle Toms,
Arthur White and Punia Jeffery

Litoria revelata



Eastern dwarf tree frog –*Litoria fallax*



Tawny frogmouth



Flying Duck Orchid - *Celeana major*

Photo by Jillie Streit Smith's Lake field trip November 2012



Smith's Lake Field Station 2012. The outdoor sheltered communal dining area. Some of the FATS current committee Phillip Grimm, Karen White, Punia Jeffery, Andrew Nelson, Wendy Grimm, Arthur White and Marion Anstis – FATS committee meeting.



FIELD TRIPS

Please book your place on field-trips; due to strong demand, numbers are limited. Be sure to leave a contact number. Regardless of prevailing weather conditions, we will continue to schedule and advertise all monthly field-trips as planned. Please phone Arthur and Karen 9681-5308 for bookings. This fieldtrip will proceed regardless of weather conditions!

(Booked out) April 25th – 28th Smiths Lake Camp-out **Sorry Booked out** **Leaders: Arthur and Karen White.**

Priority is an important concept in scientific writing. Recognising priority is the acknowledging of the original work, research and authorship of others. When priority is ignored it may lead to accusations of fraud or *plagiarism* (‘*play-jiarism*’ - *an attempt to wrongfully claim credit, misappropriate ideas or steal ‘intellectual property’*). Even inadvertent omissions have damaged very fine careers and reputations. All students, writers and presenters need to be mindful of priority. This weekend, we will look at frogs in the context of fieldwork and the writing up of scientific material. We will provide tips on how to complete assignments for school, submit articles and photos to Frogcall, Herpetofauna and other scientific publications - The rules of priority even apply to our photographic competition! Arthur has had much research published in the scientific journals and is well acquainted with the protocols of scientific writing and presentations. We are once again very fortunate to have Arthur and Karen show us around the Smiths Lake area. They have acquired a huge knowledge of this area over their years of research here. They also know how to make this a fun weekend for all! Cabin/dormitory accommodation and camping sites available. All kitchen facilities/utensils/crockery supplied. A **non-refundable** fee of \$14 p.p. per night applies. Phone Arthur and Karen White further details. Limit of thirty people applies.

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 are preferable), torch, warm clothing and raincoat. Please be judicious with the use of insect repellent - frogs are very sensitive to chemicals ! Please observe all directions that the leader may give. Children are welcome, however please remember that young children especially can become very excited and boisterous at their first frogging experience – parents are asked to help ensure that the leader is able to conduct the trip to everyone’s satisfaction. All field trips are strictly for members only - newcomers are however, welcome to take out membership before the commencement of the field-trip. All participants accept that there is some inherent risk associated with outdoor fieldtrips and by attending agree to; a release of all claims, a waiver of liability, and an assumption of risk. Robert Wall

CASTLEREAGH NATURE RESERVE FIELDTRIP REPORT. 9th FEB. 2013

Leader: Peter Spradbrow

After a long, hot dry summer which saw many of our fieldtrips cancelled this season, our fieldtrip to Castlereagh proved a bumper night with some very interesting species turning up. Peter Spradbrow took us to several local hotspots. Heavy rain the previous week had turned these usually bone-dry sites into a watery wonderland. Walking into our first site we stumbled over numerous Ornate Burrowing Frogs (see front page). Another of the more unusual finds was a quite handsome **Pobblebonk (below) *Limnodynastes dumerilli grayii***

We found many Broad-palmed Rocket Frogs *Litoria latopalmata*. We heard a Tusked Frog *Adelotus brevis* which, despite our best efforts, remained stubbornly concealed. Our next site yielded some nice specimens of Smooth Toadlets *Uperoleia laevigata*. We spent some time checking out the finer diagnostic details that distinguish the species in this difficult genus. Together with all the usual suspects we accumulated a healthy list of ten species for the night. Many thanks to Peter for a great evening. **Robert Wall**

Litoria peroni Perons Tree Frog,



Photo by Peter Spradbrow

One of the exciting finds was a Spotted Grass/Marsh Frog (*Limnodynastes tasmaniensis*) in Windsor Downs NR on the Hakea Trail. Despite being a common species which is definitely in the area, there's no Wild Atlas data showing this. **Peter Spradbrow**