

FROGSHEET

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2019 RIC NATTRASS RESEARCH WINNER ANNOUNCED



Thais Sasso Lopes

We are pleased to announce that this year's Ric Natrass Research Grant of \$1,500 has been awarded to Griffith University Ph.D student Thais Sasso Lopes. Thais' research focuses on frog species which have been subject to Chytridiomycosis, a devastating amphibian fungal skin disease that has caused the extinction of seven Australian frog species. Her research will focus specifically on the endangered Fleay's barred frog (*Mixophyes fleayi*) of the Gondwana Rainforest, which appear to be recovering after earlier precipitous declines, despite continued presence of the pathogen.

Thais' field research will use a range of survey techniques including visual and acoustic survey, and collect skin swabs of frogs and sample for environmental DNA (eDNA). Environmental data will also be recorded. The data collected from the field will then be examined using mathematical modeling to examine and compare the distributions of *M. fleayi* and the fungus, and relate them to potential environmental factors. The \$1,500 grant is designated for equipment involved in the extraction of DNA and subsequent analysis.

Fleay's Barred Frog can be found along rainforest

streams in Conondale National Park to the Border Ranges and west in Main Range. We eagerly look forward to hearing of the progress of Thais' research as she examines and compares the distributions of *M. fleayi* and the fungus, and how these are related to potential environmental factors. ■



Fleay's Barred Frog (Conondale NP)

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Mob: 0418 779 791

Email: president [at] qldfrogs.asn.au

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Email: treasurer [at] qldfrogs.asn.au

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NEWSLETTER EDITOR & WEB ADMIN

Jono Hooper

Email: editor [at] qldfrogs.asn.au

FROGSHOP SALES

Jenny Holdway

Ph: 07 3366 1868

Email: frogshop [at] qldfrogs.asn.au

POSTAL ADDRESS

PO Box 7017 East Brisbane, QLD Australia 4169

SUPPORTERS



AREA COORDINATORS

ASHGROVE

Jenny Holdway – Ph: 3366 1868

Email: qldfrogs [at] bigpond.net.au

BTRIBIE ISLAND/CABOOLTURE

Pauline Fitzgibbon

Email: fitztho01 [at] tpg.com.au

BRISBANE CENTRAL

Stefan Durtschi – Ph: 3891 6853

Email: comlab [at] optusnet.com.au

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Phil Bird - Email: frogphil [at] gmail.com

BUNDABERG

David Flack - Email: litoria.chloris82 [at] gmail.com

CHERMSIDE

James Hansen – Mob: 0427 827 443

Email: jamna [at] powerup.com.au

ESK

Jason Richard – Ph: 5424 2373

Email: jason.richard [at] ecosm.com.au

GOLD COAST

Shane Ho – Ph: 5533 8125

IPSWICH

Brett Malcolm - Mob: 0407 673 458

MARY RIVER CATCHMENT

Eva Ford - Mob: 0408 749 162

Email: eva.ford [at] mrccc.org.au

NORTH BURNETT *NEW*

Nadia Cambell – Ph: 4166 2049

Email: admin [at] goondicumpastoralco.com.au

PINE RIVERS

Rod Pattison - Ph: 3264 6391

Email: rjpattison [at] hotmail.com

REDLANDS

Steve Homewood – Ph: 3824 0522

Email: bhomewoo [at] bigpond.net.au

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SOUTH BURNETT

Wendy Benfer - Email: raywendy.benfer [at] bigpond.com

SUNSHINE COAST

Brittany Elliott - Mob: 0421 341 853

Email: brittany_b_elliott [at] hotmail.com

CHERMSIDE REPORT

I recently had my first experience using the BufoTab – the cane toad tadpole bait developed by researchers at UQ and Uni of Sydney and available to QFS through the Cane Toad Challenge (<https://imb.uq.edu.au/cane-toadchallenge>).

In late 2018, I created a garden pond in the backyard of a property in Scarborough. On one event over summer, cane toads bred in the pond giving rise to almost 2000 tadpoles. The bait was deployed over 3 days in Janu-



Day 1 (16 January 2019) - Toad bait trap set within pond.

ary resulting in 98% of the tadpoles being trapped and removed from the pond. The remaining tadpoles in the pond (approx 40) were able to be removed using a small fish net. Although this is only the first time I've used the BufoTab, it has been an excellent tool for controlling toads on this property.

Thanks to Julia Squires for supplying BufoTabs for this project. (For enquiries on baits, please email JuliaSquires@gmail.com).

James Hansen



960 cane toad tadpoles caught after Day 2, 17 January

UPCOMING EVENTS

31st March - 9-11am First of two working bees with Bardon Kindergarden. Contact Phil via the Facebook page link under the Working Bees header below.

12 - 14 July - QLD Garden Expo, Nambour.

Keep updated via our E-News Emails and Facebook

ANSWERING EMAILS

We are seeking a proactive member with decent frog knowledge to regularly attend to our Questions email Inbox. Please contact us if you are interested.

FROG HABITAT WORKING BEES

Bowman Park, Bardon

First Wednesday and Sunday of each month, during the morning. Contact Phil for more info and/or visit

<https://www.facebook.com/bowmanparkfroghabitatgroup/>

RIC NATTRASS RESEARCH GRANT

The QFS Trust Fund was created with the purpose to help save QLD frogs through education and research by means of this Research Grant, and now stands at **\$6,622.46** (+ \$1,059.04 since Summer edition)

STAY IN THE LOOP

If you have a newer preferred email address, please contact us and let us know.

HELPING HAND

We are always in need of an extra pair of hands to assist at community event display stalls. Many hands make light work, even if you can spare 30 minutes to help unpack and pack up our display gear from and to a vehicle. Most of our displays are within the Brisbane area.

Please contact our Secretary if you can help us out.

A FELLOW FROGGER'S FROG FINDS

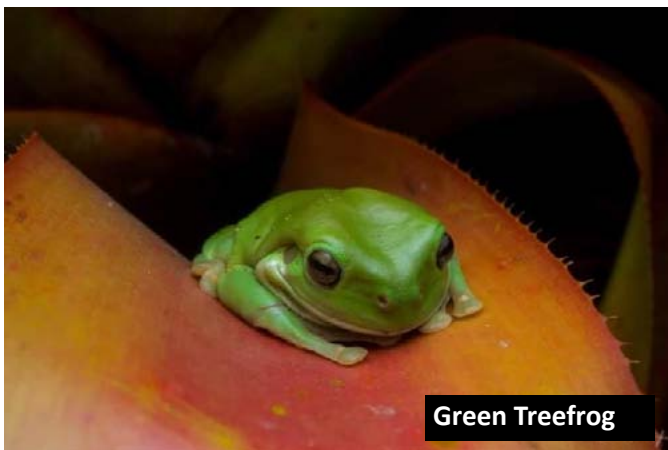
My wife and I had been looking for a house for some time around the Bundaberg region. My gracious in-laws had put us up in their house for rather cheap rent for several months since we'd moved up from Brisbane, but it was time to find our own place.

We found a great place in our price range in an estate just out of town, and during a house inspection I could hear the chirping of Eastern Sedge Frogs (*Litoria fallax*) in the bromeliads which I thought was an excellent sign to put an offer in. Soon after moving into the house I got my torch out and began exploring the area.



Eastern Sedgefrog

I was quick to find the ever-faithful Green Tree Frogs (*Litoria caerulea*); there are several living on our half acre property. I also found Striped Marsh Frogs (*Limnodynastes peronii*) in the garden. I walked down to the local park where I found hundreds upon hundreds of



Green Treefrog

Cane Toads (*Rhinella marina*). They seem to be a severe problem in this estate as there is no mains water and many properties rely on dams for their back up water source. But amidst the cane toads I was also able to

discover Striped rocket frogs (*Litoria nasuta*), Spotted marsh frogs (*Limnodynastes tasmaniensis*), Ornate burrowing frogs (*Platyplectrum ornatum*), Scarlet sided pobblebonks (*Limnodynastes terraereginae*) and Desert Treefrogs (*Litoria rubella*) - which I thought was a pretty good haul for one night in the local park that has no water source.



Ornate Burrowing Frog

On my walk back up the hill towards my new home I was confronted by a rather irate neighbour who was demanding to know what I was doing walking around the neighbourhood with a torch. It was clear she had been drinking so I politely told her that I was new to the area and had an interest in wildlife and specifically frogs and I had been looking for frogs to photograph. She lost her aggression immediately and invited me to come to her place to meet her husband and we could all use the flying fox they had that went across their dam. I was hesitant about the flying fox but didn't want to pass up the opportunity to check out one of the dams. I did find another species at their place; the Broad Palmed Rocket Frog (*Litoria latopalmata*). After a couple of turns on the flying fox, and thankfully not falling into their dam I wished my new friends goodbye and headed for home.

Later I found a road that ran through the thick roadside nature strip. I was able to head up into it after a heavy rain. I could hear promising noise as I walked deeper into the bushland, running parallel to the houses. I found drainage line was full of Graceful Tree Frogs (*Litoria gracilentia*) all in a breeding frenzy. The grass was also full of Copper Backed Brood Frogs (*Pseudophryne raveni*) with many calling that night.

The last species added to the list in my new estate was found only a couple of weeks ago and was around a neighbour's dam who invited me to their property to see what I could find. Along with the usual suspects we

found strong numbers of Northern Laughing Tree Frogs (*Litoria rothii*). Their dam is surrounded by native bushland which provided the perfect habitat for these beautiful frogs.



Northern Laughing Treefrog

In total, I have found twelve species of frogs just in our little estate alone, not including the cane toads. My exploring hasn't finished, and I hope to add one or two more to that by the time I finish exploring the estate. The most norther records of Green Thighed Frogs (*Litoria brevipalmata*) occur only a few kilometres south of here, so I've ensured my searching is thorough. It would be great if our little community yielded a slight range extension of such a cryptic and significant species.

Ben Revell 

IN REVIEW: FIND A FROG IN FEBRUARY 2019

February has come and gone and another (the 3rd) FFF period has been a great success in so many ways. Firstly, a huge thank you to David Flack and Jono Hooper for stepping in to chat with people on the FFF Facebook group (now with 214 members) as members gleefully post pictures of the frogs in their area. For all the negative press about social media it is an amazing tool to bring people together and get notices out with velocity. As an 'old' croaker, I am learning to tolerate, and maybe even enjoy, the FB interaction!

However, much of the MRCCC staff time was in promotion, workshops, displays school presentations, identifying incoming records and managing data to be provided to WildNet. We had over 400 people attend several workshops and we spoke to 300 school

Crowd of keen froggers on the Bridge Creek survey



students across the program area.

So, it wasn't the wet February we hoped for and were almost promised by the sidling of Cyclone Oma against the Queensland coast, but some localised rain was felt that legitimised the regular forecast of '10% chance of 2-5mm precipitation'! Luckily it wasn't as dry as the inaugural FFF in 2017.

The incoming records show the differences between the Februarys in an interesting way. Dry conditions have meant reduced frog numbers and reduced frog finders (presumably because they just can't find any) as you would expect. But the number of species encountered is very similar even between 2017 and 2018 that were the driest on record and a very wet month. Both those months resulted in 22 and 23 species respectively of the approximate 43 known to the area. And this year we have had 21 come in so far. Numbers of frogs varies with the conditions as one would expect. This year we have had around 1200 from 67 frog finders plus 175 survey volunteers. More is yet to come through FrogID who we teamed up



Young froggers on the Cooroora Creek survey

with this year in order to provide a phone app platform as an alternative for submissions.

Of great interest has been records of *Mixophyes iteratus* (Giant barred frog – endangered) from west of Cooroy and along Tinana Creek to the east of Gympie. It's great to hear from HQP staff who make the effort to go to remote parts of their estate at night to see who's inhabiting.

Several *Adelotus brevis* (Tusked frog – vulnerable) records were sent in from across the program area. We are so lucky to have good populations and broad geographical spread of this species in our area.



Emerald-spotted Treefrog by V. Moscato

If conditions had been better, we may have found a few more than two *Litoria wilcoxii* (Stony creek frog) along a section of Bridge Creek at the Maleny River School during a school community outing. Very likely there were more inhabitants out foraging but having 80 people along one small section would be enough to have any sensible amphibian hopping away under some very secure cover! What an enthusiastic crowd of students and parents that was!

The FFF program is starting to evolve as a monitoring program that will, in time, show trends in frog presence at sites that are surveyed year after year. Some people are doing this and the trends as mentioned before are an indication of overall activity and species presence. Of importance is that we keep running programs such as this to keep an eye on our frog distributions both broad and localised as they are very susceptible to changes in all components of the environment. Common species that often get neglected as significant in planning or amelioration under disturbing activities, are equally as critical as our threatened species. Any one of them could, like our healthy

populations of montane species that disappeared over a couple of short years, become negatively affected. The shortening of the breeding window that has occurred over the past several years is a prime example of additional pressure on species that may be unknowingly already at risk. The FFF program helps to increase the community's observation skills and promotes conservation and expansion of habitat to increase the resilience of frog species. People really enjoy seeing frogs around their place and love the opportunity to make a difference as best they can. We love making FFF happen and look forward to 2020.




Kandanga State School getting into the spirit of things

The MRCCC is hugely grateful to the people we interact with in the four Councils that cover this amazing Mary River catchment and all the smaller systems from Perigean to Burrum; Sunshine Coast, Noosa, Gympie and Fraser Coast. All Councils have again supported FFF this year; a delightful collaboration.

Eva Ford, Mary River Catchment Coordinating Committee





VULNERABLE FROGS GET HELPING HAND FROM SUNNY COAST SCHOOL KIDS

Photo by Healthy Land and Water

5 March 2019 | Tim Schaefer | Healthy Land and Water

Some of South East Queensland's vulnerable acid frog species now have a bigger, greener and safer native habitat on the Sunshine Coast thanks to a collaborative conservation project.

As part of World Wetlands Day celebrations on 28 February, Healthy Land and Water partnered with Stockland, Traditional Owners and local students to expand a frog habitat within the 700-hectare Aura Conservation Zone.

Students from Unity College and Baringa State Primary School had fun getting muddy as they planted over 750 new sedges and reeds within a specially designed acid frog breeding pond.

The breeding pond was first established in March 2018 as part of the Aura Community Stewardship Group with the planting of 820 rushes and sedges, designed to offset the environmental impacts of Stockland's nearby master-planned Aura development.

A year on, the rushes and sedges are well established, and the breeding pond is already providing vital

habitat for vulnerable species like the wallum sedge frog and many other birds, butterflies and small native mammals.

Healthy Land and Water CEO Julie McLellan said the new planting will expand frog habitat and build on the significant environmental outcomes already achieved at Aura.

"We are extremely proud to be part of a collaborative project that has already achieved success in such a short amount of time," she said.

"The breeding pond already provides vital habitat for vulnerable frog species, and we are excited to watch the area grow as the plants establish and more native animals move in and make the habitat their home."

Earlier in the day, students listened to talks from frog expert Dr Ed Meyer and Fauna Watch's Red Kernot, who explained why the Aura project was so crucial for frog conservation and the natural environment.

Ms McLellan said it was vital that young people were

aware of pressures on the environment and how they can contribute to a healthier and greener SEQ.

“One of the best parts of this project is how heavily involved local students are in the conservation effort,” she said.

“The project allows young people to have fun, see close-up the benefits of conservation and be an integral part of what promises to be a long-term environmental success story on the Sunshine Coast.” ■

A BOLIVIAN FROG SPECIES RETURNS FROM THE DEAD

26 February 2019 | Jeremy Rehm |
ScienceNewsforStudent.org

Scientists feared a deadly fungus had driven the species extinct in the wild



For a decade, scientists feared this species was extinct. Then they discovered five Sehuencas water frogs in Bolivia, including this female named Juliet. Researchers plan to introduce her to Romeo, a frog in captivity. Until now, Romeo was the last known survivor of his species. R. Moore

Scientists feared this frog was extinct. No one had seen a Sehuencas water frog in the wild since 2008. Just one “lonely” survivor, nicknamed Romeo, remained in captivity. A fungal disease has been wiping out frog populations worldwide, and scientists suspected it had killed off this one, too. But after 10 years searching Bolivian mountain forests for the long-lost amphibians, scientists have finally turned up a tiny group of five.

“It’s just incredible,” says herpetologist Robin Moore. A herpetologist studies reptiles and amphibians. Moore is the communications director at Global Wildlife Conservation in Austin, Texas. He was among the scientists who announced the rediscovery of this species on January 15.

Sehuencas water frogs (*Telmatobius yuracare*) live only in the Bolivian mountain cloud forests, where the climate is moist and cool. And that’s where researchers found the five. Unfortunately, this frog’s native habitat also provides the ideal conditions for the growth of a fungal infection with an ungainly name: chytridiomycosis (Kih-TRIH-dee-oh-my-KOH-sis). Most scientists just refer to it (and the fungus that causes it) as chytrid (KIH-trid).

The disease has killed off most Sehuencas water frogs. It was believed to have eliminated them all. Why the

five newfound animals survived remains a mystery. “It could be that this small population has immunity,” Moore says. A genetic difference might make them resistant to the fungus. Or there might be something special about their environment, such as an

unusually warm patch of cloud forest.

It could also just be luck. “Many species of frogs that disappeared for years — decades in some cases — have been seen again later,” says Karen Lips. She’s an ecologist at the University of Maryland in College Park. For example, Ecuador’s marsupial horned frog was missing for more than 10 years. In December 2018, researchers announced they had rediscovered it.

Reappearances can happen for several reasons, Lips says. There might be changes in the frogs, the fungus or the environment. “The simplest explanation is that once most of the frogs are gone, the fungus declines,” she says. With fewer hosts to infect, the disease can die off, too. Any surviving frogs can then slowly rebound until, years later, one hops in front of scientists.



The five newfound Sehuencas water frogs raise hopes that even more are still hiding in the wild. They also offer researchers a chance to help the species recover. Scientists have taken the five back to the lab. There, the frogs will breed and make more frogs that can later be returned to the forest.

There’s currently no good way to get rid of the deadly chytrid fungus in the wild. So scientists are eager to study frogs that have survived exposure to the disease, Moore says. They could offer clues to how the animals pulled through.

Whenever a frog that scientists thought chytrid had killed off later reappears, “it’s just an opportunity to understand a little more about how this [disease] works,” Moore says. And, he adds, it’s an opportunity to bring the frogs back. ■

#qldfrogs

Each newsletter will feature a selection of photos by our keen Instagram followers who tag their QLD frog photos with #qldfrogs! Tag yours to be featured here.



Great Barred Frog (*Mixophyes fasciolatus*) by Hunter McCALL



Wallum Froglet (*Crinia tinnula*) by Jason Richard



White-lipped Treefrog (*Litoria infrafronata*) by Dominic Chaplin

PRESIDENT'S REPORT

Cane toads have been in the news again recently for all sorts of reasons, however one such article was on the first sighting of a cane toad in the Blue Mountains, NSW. The article described the efforts of a citizen science group in recording frog populations in the area and watching for the presence of toads, and included a statement from an environmental scientist on the 'discovery' of the cane toad. But the cane toad in question was instead a Pobblebonk species, as the photograph revealed! This isn't the first time we've heard of our native Pobblebonk species being mistaken for Cane Toads, and it doesn't take much imagination to wonder what happened to these poor frogs.

Citizen science projects and initiatives are great, don't get me wrong. But the article I begin with above drives home the need for such programs to be backed by ecologists who specialise in the target fauna, and for citizen scientists to be well educated on the identification of the target fauna group. The QLD Frog Society enthusiastically supports well informed and prepared citizen science initiatives, such as the Find a Frog in February project founded by Eva Ford of the

Mary River Catchment Coordinating Committee, and the Cooloola Bioblitz, of which had their inaugural weekend event in August last year which I attended. The next bioblitz is scheduled for the 17-19 May.

I would describe the past few months as 'quietly busy' for several committee members, and I enjoyed the frog workshop I was invited to give in Kureepla at the International Tropical Foliage and Garden Society Sunshine Coast Branch in January.

In early February my wife and I travelled to Tasmania for a first visit to the island state for a holiday. What breath-taking scenery we were treated to, and I managed three of the eight frog species

in Tassie, including the endemic Moss Froglet (*Crinia tasmaniensis*)! Cheers,



Jono Hooper

NEXT EDITION

Thankyou to those of you who contributed to this newsletter.
**Deadline for Winter *Frogsheet* contributions is
22 May 2019**

If undelivered, please return to
QLD Frog Society Inc
PO Box 7017
East Brisbane, QLD 4169

SURFACE MAIL



Frogsheet - Autumn 2019
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