

**NEWSLETTER No. 185 JUNE 2023** 

Email: fatsgroupnsw@fats.org.au PO Box 296 Rockdale NSW 2216 Frogwatch Helpline 0419 249 728 Website: www.fats.org.au

You are invited to our FATS meeting. It's free. Everyone is welcome.

Arrive from 6.30 pm or a 7pm start. **Friday 2 June 2023** 

FATS meets at the Education Centre, Bicentennial Pk, Sydney Olympic Park

Easy walk from Concord West Railway
Station and straight down Victoria Ave.

Take a torch in winter.

By car: Enter from Australia Ave at the
Bicentennial Park main entrance,
turn off to the right and
drive through the park. It's a one way road.

Turn right into P10f car park.
Or enter from Bennelong Rd/Parkway. It's
a short stretch of two way road. Turn left.

Park in P10f car park, the last car park before the Bennelong Rd. exit gate.



Image and article on pages 3 and 4 by Grant Webster

# FATS MEETING 7PM FRIDAY 2 JUNE 2023

6.30 pm	Lost frogs seeking forever homes: Please bring your
	membership card or join FATS on the night and \$50 donation.
	<b>CREDIT CARDS ACCEPTED</b> but please bring cash for the
	raffle, unless you spend over \$10. Your NSW NPWS
	amphibian licence must be sighted on the night. Adopted
	frogs can never be released. Contact us before the night and
	FATS will confirm if any frogs are ready to rehome.

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8.00 pm	Main speaker: Levi Brown (Macquarie Uni)
	"Detection of fire-related cues by frogs"

Second speaker: Arthur White: Frogs of Berry Springs Northern Territory.

9.30 pm Show us your frog images. Tell us about your frogging trips or experiences. Guessing competition Credit cards can be used for raffle purchases over \$10, but we prefer if you bring cash please, frog adoptions continue, supper, relax and chat with frog friends and experts.

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### **FATS 2023 FROG-O-GRAPHIC COMPETITION**

The FATS members' Frog-O-Graphic competition opened on the 1 May and closes on the 31 August 2023.

There is a new category this year. Best "wild" tadpole/s or frog/s video. Maximum duration 30 sec, maximum file size 80 MB, maximum resolution 1080P. Format MP4. Wild frogs only with no people visible ie frogs that are free to come and go including in back yards. No pet frog videos please. Send the link for file to be downloaded in an email to photos@fats.org.au

> Best Frog Image, Best Pet Frog Image,

**5 CATEGORIES:** 

Best short "wild" frog video Most Interesting Image and People's Choice.

Winners are decided by a panel of judges. **People's Choice** is voted for by everyone present at the October FATS meeting.

# All entries are by email to <a href="mailto:photos@fats.org.au">photos@fats.org.au</a> In the submission please state: \* your name,

\* confirm that you are a financial member, \* identify the frog species preferably by scientific name (in the file name) and location, if known, \* whether the image is a pet frog and \* your contact phone number

## Max 6 entries per person Max image attachment size 6 MB

Fabulous prizes awarded. Entries must be original and your own work. They don't have to be recent images. The entries may appear in FrogCall, FATS Facebook, our web site and other FATS publications.

**Arthur White** 

# DONATE TO HELP THE GREENACRE GREEN AND GOLDEN BELL FROG PROJECT

In 2021 FATS started the Greenacre Green and Golden Bell frog Project. Habitat for these frogs was developed in a special site at Greenacre and Bell frogs were lured to the site using mating call **broadcasts.** Bell frogs arrived at the site within a month of the commencement of the broadcast and bred there shortly afterwards. The frogs did not stay there over winter.

In the 2022-2023 season Bell frogs again entered the site (without the need for call broadcasts) and again bred. Adult and juvenile frogs are currently on the site and FATS is monitoring their survival. FATS members also take part in working bees to help maintain the site and we are constantly modifying the frog habitat in response to our monitoring results.

Periodically we need to buy new equipment, repair fences or ponds, replace vegetation, control invasive weeds and pest animals and prepare for visits by members of the public. All of this costs money. If you would like to assist with this project you can donate to the Greenacre Project by filling in the box at the end of the FATS membership renewal form and remitting your contribution. If you want to join our working bees, see one of the committee members and let them know.

Thank you for your help. Arthur White

# DONT BREED YOUR FROGS WITHOUT CAREFUL PLANNING

rom time to time, people ask about getting a pair of frogs from the FATS Frog Rescue Service so that they can breed them. While this might seem like a nice thing to do – it is fraught with trouble.

Firstly, when frogs breed they do not produce one or two young, they produce many hundreds or even thousands.

What do you intend to do with hundreds++ of baby frogs? You cannot release them into the wild because of disease concerns (it is illegal to release captive frogs without special scientific licences). You cannot sell them unless you have reared the frogs under sanitary conditions where diseases such as Chytrid or Ranavirus are controlled. You cannot give them away for the same reason. And imagine the cost to try and feed and house them!!

Do not expect the FATS Frog Rescue Service to accept your excess frogs. We will not take them. Do not put yourself in a situation where you have to euthanase frogs. If your captive frogs breed unexpectedly, you would be better to remove the eggs as soon as possible and dispose of them. To avoid this happening, keep adult sexes separate wherever possible.

**Arthur White and Marion Anstis** 

# **FATS AGM NOTICE FRIDAY 4 AUGUST 2023**

The FATS AGM will be held on Friday 4/8/2023, commencing 7pm.

FATS meets at the Education Centre, Bicentennial Park, Sydney Olympic Park.

If you would like to ask any questions about joining the FATS committee, please give us a call. Contact our President Arthur White at least two weeks before the meeting for further information or to submit items.

We appreciate fresh ideas and new members on our committee. No experience required. The committee meets 6 times a year. No tasks, commitments or time expected of committee members, other than what you are able to spare.

> See contacts details on page 11. **Arthur White**

#### THE MOUNTAIN FROGS: ONE GENUS, TWO GENERA?



Rainforest stream habitat of the Red and Yellow Mountain Frog, Philoria kundagungan

he remote and wild mountainous country of northern New South Wales and south-eastern Queensland is home to a special group of terrestrial and fossorial, cryptic little creatures, we call the "Mountain Frogs". Six species are currently known, each confined to its own particular mountain range, metaphoric islands between a sea of inhospitable terrain for these little mountain dwellers. Their montane refugia are also home to equally stranded, enchanting ancient rainforests, relics from Gondwana itself. These mountains feature a climate from Australia's past, cool and wet, largely spared from more extreme heat and the dry eucalypt forests that surround them. The abundant moisture carves intricate mosaic bogs of moss and mud into the forest floor, which cut pristine streams along the landscape as the water escapes, down sometimes exceptionally steep slopes. Within these muddy bogs, mossy soaks, and shallow streams, the Mountain Frogs have found the perfect home.



The Masked Mountain Frog, *Philoria loveridgei*, renamed *Kyarranus loveridgei*, before being moved back to the genus *Philoria* 

The first of these Mountain Frogs to be discovered was Masked Mountain Frog, found in the upland rainforests of the NSW/QLD Border Ranges, and in 1940 Hampton Parker gave it the scientific

name Philoria loveridgei. But this was not the first species to be placed into the genus *Philoria*, a genus name first used by Walter Spencer, nearly four decades earlier, when Charles Frost discovered another unique mountain dwelling frog (that had been regurgitated by a Tiger Snake!) from the summit region of Mt Baw Baw in Victoria. Like the Masked Mountain Frog, the Baw Baw Frog was confined to high elevation montane vegetation, but rather than just rainforest, this species also occupied the alpine woodlands and heaths which are coated by a blanket of snow over the winter months! Despite being worlds away, these two species share a unique breeding habit – males calls for mates from dutifully constructed burrows in damp ground, where females lay their eggs, if sufficiently impressed by the male's efforts. Unlike most frog species however, the eggs hatch within the burrow, with tadpoles swimming only amongst seepage moisture and the liquefied jelly of the egg mass, never entering free standing water and surviving mostly on yolk reserves until metamorphosis.

In 1958 the next Mountain Frog to be discovered was the Sphagnum Frog, from the high elevation sphagnum bogs of Point Lookout, on the New England Tableland of NSW. The Sphagnum Frog (see page 4) was given the scientific name Kyarranus sphagnicolus, the generic name Kyarranus was newly created for this species, and the first time a "Mountain Frog" would be known by a name other than Philoria. Noting similarities to the Masked Mountain Frog, this species was also moved into Kyarranus, once again rendering the Baw Baw Frog the only species of Philoria. John Moore, the herpetologist who coined Kyarranus had good reason to believe the Mountain Frogs of NSW didn't really 'fit in' with Victoria's Baw Baw Frog – the Baw Baw Frog was far larger in size, with a rounded snout and featuring massive parotoid glands. The Kyarranus on the other hand were smaller, with a pointed snout and had no parotoid glands. He was also aware that when Philoria loveridgei was named, Parker didn't have access to Philoria frosti to physically compare with P. loveridgei, relying on literature to make this decision. Moore also thought his new species Kyarranus sphagnicolus was almost as different from *Philoria frosti* as it was from *P*. loveridgei, but ultimately decided P. loveridgei also belonged in the genus Kyarranus.

This 'dual genera' approach continued for several decades, and when another Mountain Frog was discovered in 1975, again in the border region of NSW and QLD, it too was assigned to *Kyarranus*. This species, *Kyarranus kundagungan* is a remarkably beautiful species, often entirely bright red or yellow in colour.

**Continued on Page 4** 



Alpine heath habitat of the Baw Baw Frog, Philoria frosti

### **Continued from Page 3**

Nearly a decade after the third *Kyarranus* species had been discovered, a storm of uncertainty and controversy was brewing. This culminated into a nomenclatural crisis for the Mountain Frogs, which still continues to this day. In 1983 the 'dual genus' paradigm ceased and *Kyarranus* was no more, losing all of its species to Victoria's *Philoria* – a single genus, now of four species.

This 'reshuffle' was not given a published explanation, but that may have been in part due to Moore not providing a sufficient description to distinguish his *Kyarranus* genus from the description of Spencer's *Philoria*, but there was not a full justification for the merging of these two genera given at the time. Merging genera is not too uncommon in taxonomic science, but such a move is not something that would be accepted for publishing today by any peer reviewer without convincing evidence.

Understandably, this didn't sit well with every Australian herpetologist, with *Kyarranus* continuing to appear in books and literature, including Mike Tyler's 1995 field guide.

More recently, the genetic revolution has provided a deeper understanding of the Mountain Frogs we once called *Kyarranus*. In 2004 a further two Mountain Frogs were discovered in northern NSW, and only last year another species identified again from the NSW/QLD border region.

These three species had previously been mistaken for known Mountain Frogs of this region, i.e. the species that comprised *Kyarranus*, with genetic data confirming close relationships between this group of six species.

The authors of the 2004 paper had to make a firm decision on what genus name should be applied to these frogs – stick with '*Philoria* only' or embrace support of *Kyarranus* and formally 'resurrect' the genus. Perhaps maintaining the status quo was the simplest way forward; the species were placed into *Philoria*, the name *Kyarranus* was not used and the use of the single genus *Philoria* for all Mountain Frogs had stuck, without published evidence supporting the loss of *Kyarranus*.

Simultaneously, however, both the 2004 and 2022 phylogenetic revisions had the opportunity to explore, if not even resolve, the 'dual genera' proposal. In both studies the NSW and QLD species were investigated, near exclusively, with the 2022 including *Philoria frosti* in only one the analyses. Neither study included close relatives from other limnodynastid genera, or any other species in the same family.

Including more distant relatives in genetic analyses is common practice – doing so would have helped us understand the relationships within and between *Philoria* (inclusive of the '*Kyarranus*' Mountain Frogs) and other limnodynastid genera. To me, at least, this felt like a bit of a missed chance for some well overdue clarification.

After 39 years, there is still no published data supporting the merging of *Kyarranus* into *Philoria*, so one can't help but to feel a little mystified that the question of why we only have one Mountain Frog genus, rather than two, remains unanswered.

Article and all images by Grant Webster



The Sphagnum Frog, *Philoria sphagnicolus*, originally named *Kyarranus sphagnicolus* 

# MULTINATIONAL TASK FORCE AIMS TO SAVE COLORFUL RAINFOREST FROGS extracts

t a conference on herpetology — A the branch of zoology studying reptiles and amphibians — at the end of the 1980s, researchers from numerous countries began to tell of disappearing and shrinking frog and toad populations. It was found not to be an isolated situation: the same phenomenon was happening in many forests and mountains across the American continent. After a number of analyses, the scientists found that thousands of amphibians were becoming victim to a lethal fungus originating in Asia called Batrachochytrium dendrobatidis, or Bd, which causes a disease called chytridiomycosis. Asian amphibians are resistant to the fungus, but not those on the other continents. Among the many amphibian species decimated in recent decades by Bd are those in the genus Atelopus, commonly known as harlequin frogs.

The Atelopus spumarius harlequin frog lives in the Amazon Rainforest, with populations in Brazil, Peru, Ecuador, Colombia and the Guianas. Photo courtesty of Jaime Culebras/ASI. Found in a region stretching from Costa Rica to Bolivia and from Ecuador to French Guiana, including the Brazilian Amazon, these frogs measure a mere 2-3 centimeters (0.8-1.2 inches) in length. Their colors, however, can only be described as showy. They are covered in some of the most vibrant found in nature — hot pink, orange, neon yellow and purple — earning themselves the moniker "jewels of the neotropics.".....

Marin da Fonte is a Brazilian researcher and head of the <u>Atelopus Survival</u> <u>Initiative</u> (ASI), which was created in 2019 to work toward saving harlequin frogs from extinction. The unprecedented project has drawn together 57 organizations from 15 nations including Brazil. The scientists realized they would be more successful working together than separately.

Micro-endemic populations are the most vulnerable Not only are amphibians having to deal with the highly lethal Bd fungus, their physical characteristics also make them more susceptible to changes in climate. Marin da Fonte explains that amphibians breathe through their skin and, as they have no way of regulating their body temperature, depend on the

temperature of their environment to do this. "In extreme heat, mammals can perspire and reduce their metabolism to compensate for lost energy. Amphibians can't do this, so if the temperature outside is too hot, they will probably die."......



### Harlequin frog species Central and South America. Image courtesy of ASI.

And in the case of deforestation or other types of habitat destruction, some mammals and birds can flee to other regions. Frogs, toads and tree frogs, however, cannot, and they end up dying. In the case of harlequin frogs, what makes these threats even more serious is that many of their species are micro-endemic, meaning some populations are so small that they are found only in one specific region. When they face threats such as chytridiomycosis, destruction of their habitat or a sudden rise in temperature, they stand a greater risk of extinction.

Most of the harlequin frog species described until today are found in Colombia, Ecuador and Peru, numbering 41, 24 and 19, respectively. But more than 75% of these species live at high altitudes, some with snowy peaks 4,500 meters (14,760 feet) above sea level. ......

Fewer frogs, more malaria The Atelopus exiguus harlequin frog is a species exclusively found in the Ecuadorian Andes. Photo courtesy of Jaime Culebras/ASI. A <u>scientific article published in Environmental Research Letters</u> in 2022 warned that there has been a jump in malaria cases in humans in Central America. In the eight years following the significant losses of amphibians caused by Bd, there has been an increase in the disease equal to approximately one extra case for every 1,000 people, meaning a rise from 70% to 90%. For those needing more justification to fight for the preservation of these beautiful and rare neotropical jewels, this serves as a very worrisome one. <a href="https://news.mongabay.com/2023/03/multinational-task-force-aims-to-save-colorful-rainforest-frogs/">https://news.mongabay.com/2023/03/multinational-task-force-aims-to-save-colorful-rainforest-frogs/</a> Xavier Bartaburu This story was reported by Mongabay's Brasil team and first published <a href="here">here</a> on our Brasil site on 13/2/2023. Forwarded to FATS by Punia Jeffery.

### THE FROG HOSPITAL IN A NUTSHELL



When I first started this concept of a 'frog hospital' back in 1998, heaps of people thought it was a joke. My, how times have changed. The public now sees frogs like any other animal that needs rescuing but they found out the hard way during the previous winter that there are STILL few people around the country who can receive, diagnose and rehab frogs. But to backtrack a bit first ....

Although it seems unbelievable after 24 years of operation, at least 90% of all the work our group is responsible for is done by only one person who also has their own chronic health problems (that would be me). Finding volunteers in this region is extremely difficult even those required to volunteer by Centrelink don't want to put in their hours anymore. If there isn't a volunteer to do a task, it lands back on my plate. I have to be a oneman animal carer, consultant, office worker, cleaner, grounds keeper, marketer, author, bookkeeper and teacher - many of these are each a full time job.

Interesting cases: We normally receive a wide range of problems but the one which needs urgent research is cancer in frogs. The first case we received was back in 1999 - squamous cell carcinoma. Since then, the types of cancer found by the labs and the numbers of individuals has increased. We have a page on incoming cancer cases in our website in the Health problems section.



The frog in this photo didn't look particularly menacing when it arrived but three different types of growths appeared on the face and it was sent for biopsy. Poor thing had two different cancer types: squamous cell carcinoma and adenocarcinoma - the first time we have seen more than one type of cancer on a single individual.

Summer is when the cancers become obvious and already so far this summer, five cases have come in: one with two different types of cancer on its face and one with a new tumour type we haven't seen before (waiting for lab results).

We also continue to see chemical burns cases which is infuriating to see people treat animals that way especially small, gentle ones like frogs.



A most bizarre case came in which had no skin at all on its back. This frog was living in the backyard of a house that is completely surrounded by sugar cane. I have also seen a flying-fox in Cairns that was missing a huge amount of skin on its chest and arm and this also did not look like an injury. We simply have no idea what impacts chemicals are having on wildlife, As long as it is not investigated, we will never know - we will just watch things disappear and wonder why after it is too late.

What's Happening? Last year we started a log for incoming requests for help so that we could have concrete stats on how many cases we assist and what for. While winter months were quieter, we assisted 240 contacts, 99 of which were outside the FNQ region/interstate. 165 were for sick/injured frogs and the rest were for ID's, tadpoles, toads and general Q's.

We are privileged to have received a donation from Endeavour Tools in VIC who is paying for our website to be reconstructed. The new site is up and readable on any device. It also includes a new page on the neonicotinoid chemical group which is likely to be a big threat to frogs).

We also received a grant to purchase new plastic enclosures for the frogs in care but what we need is no



longer available in Australia. The closest thing to what we need is available in Europe but will cost us \$110 per plastic tank (outrageous). While you may have read about supply chain breakdowns and think it is only overseas, it is happening here too - just depends on what you are looking for.

The property we are renting is a small acreage property which backs directly onto World Heritage Area. After three hard years of clean-up, we listed the property as a sanctuary under the HSI's Land for Wildlife program. The property is called Bunjinuu Reserve after the amazing and very slow growing Lepidozamia (rainforest cycad) trees that pepper the property. The larger cycads on this property range from 100 to 300 years old.

Very sadly however, we received word in mid January that the house is being sold and we have to move (AGAIN!). However, finding a cheap property in a rental crisis will be a miracle. This might be the final blow to the existence of the frog hospital activity.

What happened to the world?



ABC news has featured a few articles on the collapse of volunteering in Australia this year. Not news to us - for the past year, we have only had one regular volunteer who comes

in for a few hours a week. In 2021, we did a callout that attracted about 30 responses: all from people in the capital cities who wanted to know if they could volunteer from home!! In 2022, there were no responses at all which means the workload I have to carry is far beyond what can be done by one person. Donations have also trickled down to a tiny fraction of what is needed to cover the monthly bills and now we have yet another relocation to pay for.

The knowledge I have acquired in the 24 years of receiving over 3,400 sick/injured frogs is essential to assist with the die-off which continued into this past winter. We have also heard recently from professionals who are \*finally\* interested in pursuing our cancer cases and other acquired knowledge. However, keeping our group alive while support levels have crept so low is a massive challenge. I'm not trying to 'blow my own horn' but it would be simply tragic for frog populations if our crusader's voice was silenced by a lack of recognition and participation.

To close, we'd like to say thanks to the FATS Group for your generous support over the years. I think it appropriate to say at this point that our fate is in the hands of the gods! by Deborah Pergolotti, Founding President, Frog Safe, Inc.



### SOME AUSTRALIAN HERPETOLOGICAL GROUPS

FATS welcomes new and updated announcements from any Australian herpetological groups. Please email the editor (see page 11) if you would like to add an article or announcement in any of our future newsletters, FATS Facebook page or web site.

### ACT HERPETOLOGICAL ASSOCIATION ACTHA



Each year the ACT Herpetological Association (ACTHA) in partnership with the Australian National Botanic Gardens (ANBG) put on a week long exhibition in January showcasing a variety of Australian reptiles and frogs, many of which are threatened, endangered and very rarely seen in the wild or captivity. Snakes Alive! 2024 will run from 8 - 14 January 2024 with a wide variety of reptiles, frogs and enthusiastic educators to thrill and inform the community about our native herpetofauna. Everyone is welcome at ACTHA bi-monthly meetings held at 7pm on the third Tuesday of every second month (February, April, June, August, October and December) at Canberra Reptile Zoo, O'Hanlon Pl, Nicholls (Gold Creek). <a href="http://www.actha.org.au/">http://www.actha.org.au/</a> Mailing Address: PO Box 440, Jamison, ACT 2614 email <a href="mailto:info@actha.org.au/">info@actha.org.au/</a> https://www.facebook.com/actha.org.au

#### THE ILLAWARRA REPTILE SOCIETY



The Illawarra Reptile Society IRS meets at Fairy Meadow Community Hall, the first Monday of every month, at 6:30pm. Email: <a href="mailto:illawarrareptilesociety2015@gmail.com">illawarrareptilesociety2015@gmail.com</a> web site <a href="http://illawarrareptilesociety.com.au/">https://illawarrareptilesociety.com.au/</a> Facebook: <a href="https://www.facebook.com/groups/262254127185488/about">https://www.facebook.com/groups/262254127185488/about</a> If you would like to join IRS, email <a href="mailto:illawarrareptilesociety2015@gmail.com">illawarrareptilesociety2015@gmail.com</a>

### MACARTHUR HERPETOLOGICAL SOCIETY



The Macarthur Herpetological Society MHS meets every third Friday each month, except January. Doors open at 7pm at the Scouts Hall 48 Broughton Street, Campbelltown, NSW for a 7:30pm start. Website <a href="https://macarthurreptiles.com.au/">https://macarthurreptiles.com.au/</a> Email <a href="macarthurreptiles.com.au/">president@macarthurreptiles.com.au/</a> Facebook <a href="https://www.facebook.com/profile.php?id=100064370722234">https://www.facebook.com/profile.php?id=100064370722234</a>

## THE QUEENSLAND FROG SOCIETY



Members receive the Society's *Frogsheet* newsletter and are able to take part in field trips and attend lectures. New members are also entitled to collect a free copy of the "Frogs of Greater Brisbane" poster. Each year QFS take the display to community events and garden expos to spread the word about frogs.

https://www.facebook.com/qldfrogsociety http://www.qldfrogs.asn.au/

PO Box 7017 East Brisbane Queensland 4169 qldfrogs@bigpond.net.au

Instagram: <a href="https://www.instagram.com/qldfrogs">https://www.instagram.com/qldfrogs</a>

Queensland Garden Expo, which we will be attending on the 7th, 8th and 9th of July and the Off Grid Expo at Goomeri on the 2nd and 3rd of September.

Our meetings are held the third Wednesday of every second month via Zoom. The meetings always start at 7:30pm. the dates of our upcoming meetings for this year will be:19th July 2023, 20th September 2023 and 15th November 2023 Any of our members are able to join these meetings but they will need to be sent a Zoom code prior to the meeting if they wish to attend.

### FROGS VICTORIA SOCIETY



Frogs Victoria holds events on the first Thursday of the month March – November from 6pm for dinner and drinks (available for purchase), talks start at 7:30pm at The Elgin Inn, Hawthorn Melbourne Victoria. No RSVP necessary. Membership not needed to attend events. Contact <a href="mailto:info@frogsvic.org">info@frogsvic.org</a> for more information. Instagram @frogsvic. Please see the <a href="mailto:events">events</a> page for upcoming meetings and come along and join in. <a href="https://www.frogsvic.org/">https://www.frogsvic.org/</a> <a href="https://www.frogsvic.org/events">https://www.frogsvic.org/events</a>

### HAWKESBURY HERPETOLOGICAL SOCIETY



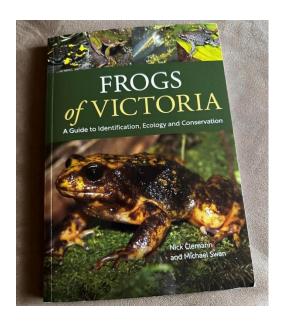
The Hawkesbury Herpetological Society HHS holds monthly meetings at 30 Herbert Street Cambridge Park NSW 2750 Every 2nd Friday of the month at 7:30 pm with guest speakers and topics to suit a wide range of herpers. Everyone is welcome. Mailing address PO Box 680 Penrith BC 2751 HHS conduct field trips comprising one-day outings, and others taken over a weekend. HHS hold regular events throughout the year. Our Reptile Expo, Annual Photo Competition, member's picnic, and in December most years we join the other herpetological societies of Sydney and surrounds for a Christmas BBQ held at The Australian Reptile Park with free entry for herp society members, and access to behind-the-scenes tours. Since 2010 we have held a Reptile Expo each year that draws thousands of people. info@hawkesburyherps.org.au https://www.facebook.com/hawkesburvherps https://hawkesburyherps.org.au/

### THE AUSTRALIAN HERPETOLOGICAL SOCIETY



https://www.facebook.com/TheAusHerpSociety

https://ahs.org.au/ All AHS meetings are currently held on the fourth Wednesday of every month at the Sydney Mechanics' School of Arts – Mitchell Theatre, 280 Pitt St, Sydney NSW. All are welcome to attend. There is a \$5 cover charge at the door for non-members. Throughout the warmer months, the AHS organises field trips and surveys around the Sydney area and beyond. These trips are for AHS members only. info@ahs.org.au



#### FROGS OF VICTORIA

A comprehensive photographic field guide to the frogs found in Victoria.

Amphibians are one of the world's most rapidly declining fauna groups. In an era of devastating climate change, habitat destruction and irreplaceable loss of biological diversity, it has never been more important to have effective resources for identifying and managing wildlife.

Tapping into the deep knowledge of the best frog experts in south-eastern Australia, *Frogs of Victoria* not only provides the tools to identify Victorian frogs – including keys, photographs and comparative information on similar species – it also presents detailed information on their biology, habitats, status and threats. Importantly, the authors also detail the urgent actions required to prevent further loss of amphibian diversity in Victoria.

Including stunning images from some of Australia's finest wildlife photographers, *Frogs of Victoria* is an authoritative resource for ecologists, land managers, conservationists and all who are fascinated by frogs.

The new book will hit the bookshops in a couple of months, but as well as advance author copies, CSIRO Publishing provided an advance copy for Frogs Victoria patron, the great Murray Littlejohn. The book features a tribute to Murray's remarkable career, starting in the 1950s. Over the following decades, Murray and his talented colleagues (including greats like Peter Rawlinson, Angus Martin and Graeme Watson) generated vast amounts of knowledge on the frogs of Victoria. That knowledge is the foundation of this book.

The book can be pre-ordered from CSIRO Publishing here:

https://www.publish.csiro.au/book/7950/?fbclid=IwAR 2RCGOGVui6dRSxb8-

 $\underline{QqBiaMr9KRceI0igMJRXc7GfcmNUaICAAyPfsUno\#} \\author$ 

**Nick Clemann** has been leading programs on threatened wildlife throughout south-eastern Australia for 25 years. He advises government on threatened species research, management, policy and scientific permits. He works for Zoos Victoria and holds an honorary position with Museums Victoria.

Michael (Mike) Swan was previously a senior herpetofauna keeper with Melbourne Zoo and Healesville Sanctuary. He is now the coordinator of the Lilydale High School reptile collection, the largest school collection of reptiles and frogs in Australia. He is a keen photographer and has written numerous articles, papers and books about reptiles and frogs, including *Frogs and Reptiles of the Murray–Darling Basin*.

## FATS AT THE SYDNEY ROYAL EASTER SHOW 2023



Congratulations Marie Callins 2023 Sydney Royal Easter Show winner





Kathy Potter and Sarah at the FATS 2023 Easter Show booth



Happy Litoria peroni Perons Tree Frog in Matraville, Sydney





FrogCall 185 P

The FATS meeting commences at 7 pm, (arrive from 6.30 pm) and ends about 10 pm, at the Education Centre, Bicentennial Park, Sydney Olympic Park, Homebush Bay. FATS meetings are usually held on the first Friday of every EVEN month February, April (except Easter Friday), June, August, October and December. If the FATS meeting falls on Easter Friday, then the meeting will probably be one week earlier. Call, check our web site, Facebook page or email us for further directions. We hold 6 informative, informal, topical, practical and free meetings each year. Visitors are welcome. We are actively involved in monitoring frog populations, field studies and trips, have displays at local events, produce the newsletter FROGCALL and FROGFACTS information sheets. FATS exhibit at many community fairs and shows. Please contact Events Coordinator Kathy Potter if you can assist as a frog explainer, even for an hour. No experience required. Encourage your frog friends to join or donate to FATS. Donations help with the costs of frog rescue, student grants, research and advocacy. All expressions of opinion and information in FrogCall are published on the basis that they are not to be regarded as an official opinion of the FATS Committee, unless expressly so stated.

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**FATS ON FACEBOOK:** FATS has over 4,550 Facebook members worldwide. Posts vary from husbandry, disease and frog identification enquiries, to photos and posts about pets, gardens, wild frogs, research, new discoveries, jokes, cartoons, events and habitats from all over the world. The page was created 11 years ago and includes dozens of information files – just keep scrolling to see them all. <a href="https://www.facebook.com/groups/FATSNSW/">https://www.facebook.com/groups/FATSNSW/</a>

**RESCUED FROGS** are at our meetings. Contact us if you wish to adopt a frog. A cash donation of \$50 is appreciated to cover care and feeding costs. Sorry we have no EFTPOS. FATS must sight your current amphibian licence. NSW pet frog licences, can be obtained from the NSW Department of Planning, Industry and Environment (link below). Please join FATS before adopting a frog. This can be done at the meeting. Most rescued frogs have not had a vet visit unless obviously sick. Please take you new, formerly wild pet to an experienced herpetological vet for an annual check-up and possible worming and/or antibiotics after adoption. Some vets offer discounts for pets that were rescued wildlife.

https://www.environment.nsw.gov.au/licences-and-permits/wildlife-licences/native-animals-as-pets/frog-keeper-licences

FATS has student memberships for \$20 annually with electronic FrogCall (but no hard copy mail outs). <a href="https://www.fats.org.au/membership-form">https://www.fats.org.au/membership-form</a>

Thank you to the committee members, FrogCall supporters, talented meeting speakers, Frog-O-Graphic competition entrants, event participants and organisers David, Kathy and Harriet Potter, Sarah and Ryan Kershaw. The FrogCall articles, photos, media and webpage links, membership administration and envelope preparation are greatly appreciated. Special thanks to regular newsletter contributors: Robert Wall, Karen & Arthur White, Andrew Nelson, Wendy & Phillip Grimm, Marion Anstis, George Madani and Punia Jeffery.

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# **JODI ROWLEY** AUSTRALIAN MUSEUM

# LIFE SCIENCES AND EARTH SCIENCES

A Zoology Field Leader

The Australian May 2023 Research awards 2023

Lead institution JCU

Recognising excellence Australia's research field leaders

As a biologist with a keen interest in amphibians, particularly frogs, Jodi Rowley is hit with seemingly neverending bad news: increasing numbers of frog species under threat, frog habitat destruction and spreading disease.

Yet she is heartened by the enthusiasm of tens of thousands of Australians prepared to stand in swamps and other waterways to record frog calls and contribute to the massive citizen science FrogID project which she leads.

Amphibians are one of the least understood and most endangered groups of animals on the planet, Rowley says, noting that according to the authoritative IUCN Red List, 41 per cent of amphibian species worldwide are threatened with extinction.

Habitat loss and modification globally are probably the biggest threat to amphibians," says Rowley, a leader in her field of zoology. "They are very sensitive to any kind of environmental disturbance."

Also adversely affected by pollution, global warming, extreme weather, invasive species and exotic diseases amphibian species can sometimes begin

Continued on Page 42

# Life Sciences & Earth Sciences Australia's research field leaders



ley shows a green tree frog to school children

John Applevant

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to recover with a little assistance.
Rowley wrote her doctoral thesis on whether the differing behaviour of certain frog species in Far North Queensland rendered them more or less susceptible to chytridiomycosis, a deadly fungal disease which has spread around the world and which is responsible for the extinction of hundreds of species globally and at least four in Australia.

She attached tiny radio transmitters to a number of frogs with waist belts and then stalked them through the rainforest for weeks to determine whether natural "friendly" behaviour, such as touching one another and bathing with one another in pools, contributed to the disease spread in certain species.

She found it did, and other species, with

individuals happy to spend time alone sunbathing on a hot rock or up high in the tree canopy, were less affected by the disease. Now living in Sydney, with a joint appointment at the Australian Museum (80 per cent of her time) and the University of NSW (20 per cent), Rowley researches amphibian and reptile biodiversity and engages the public with the Museum's FrogID project. Hundreds of thousands of people have downloaded the FrogID app since the project began five years ago and more than 30,000 people have contributed about 450,000 audio recordings of frog calls to the database so far, Rowley says.

"It has been a massive game-changer," she says. "There's not so many frog biologists or herpetologists around. We're at this moment in history where frogs need rapid conservation decisions based on real information and we don't have enough of that. We're making

Data provided to FrogID by interested citizens can help scientists understand how frogs are faring, the sorts of habitat they're breeding in, how they're affected by bushfire, drought, climate change and urbanisation, and, over time, frogs' rate of retreat in Australia's wild places.

wild places.
"It has revolutionised our understanding of frogs while at the same time raising the profile of frogs in Australia." Rowley says. "We managed to write a scientific paper based on FrogID data after the bushfires. It was the first paper anyone had published with real, extensive, data on the impact of the Black Summer bushfires on Australia's biodiversity." Sian Powell