




WINTER 2021

# FROGSHEET

<http://www.qldfrogs.asn.au/> |  questions [at] qldfrogs.asn.au |  /qldfrogsociety |  @qldfrogs

Behind the scenes of the new Australian frog field guide from CSIRO publishing: Page 3

Image: The critically endangered Southern Corroboree Frog (*Pseudophryne corroboree*). Credit: Mark Sanders



## Not a scientist? No worries...

Do your bit for Australian science by getting involved with a citizen science project (pages 2 and 5)

Orange-thighed Frog (*Litoria xanthomera*) from north-east Queensland. Credit: Mark Sanders, author of 'Photographic Field Guide to Australian Frogs'. Interview on pg 3.



## IN THIS ISSUE

Pg 2 – FrogID: What's it all about?

Pg 2 – Update to QFS conduct guidelines

Pg 3 – Interview with Mark Sanders: author of 'Photographic Field Guide to Australian Frogs'

Pg 5 – Letter to The Editor

Pg 5 – Soils for Science: A citizen science project from the University of QLD

Pg 6 – From the Secretary's Desk

Thank you  
to our  
supporters



**Public Trust Fund:** Total now stands at \$3,928.83



## President's Report

**H**ELLO AGAIN, ALL OF our QFS members. As we are now heading into the cooler months many species of our amphibian friends will not be as active, but thankfully we can still find some frogs at this time of year. If you do hear or see frogs while out and about, don't forget that you can record your findings using the FrogID app. Take a look at the article below to learn more about this citizen science project and how easy it is to get involved.

In exciting news, we have one of our major events of the year coming up soon, a display at the Queensland Garden Expo in Nambour from 9–11th July. This follows a successful presentation recently delivered by Jono and Julia in partnership with the Sunshine Coast Regional Council at the Mary Cairncross Scenic Reserve. The talk was as part of the 'Meet the Cool Neighbours' exhibition, which focuses on amphibians and reptiles. If you missed the talk you can still catch the rest of the exhibition as it's running until September.

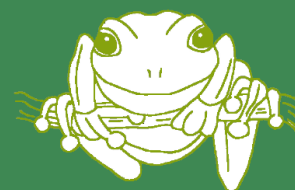
We have requests coming in from all over the state for QFS to be involved in events and festivals, which are some of the best ways for us to disseminate valuable information about frogs and the environment to the general public. It would be great to be able to take advantage of all of these requests, but there are areas that we cannot currently service because the members that are usually involved in delivering these activities simply live too far away.

If you are interested in getting involved by giving presentations or manning displays for QFS at events or festivals, please get in touch with myself or Jono, our Events and Initiatives Coordinator.

Take care of yourselves, and look out for each other and the environment.

Warm regards,

**Ashley Keune**



## FrogID: What's it all about?

**F**ROGS COME IN A variety of sizes, colours and patterns. Some climb trees while others live in leaf litter. Every frog species makes a different, distinctive sound; the familiar Australian green tree frog (*Litoria caerulea*) croaks, while other species might tock, rattle, whistle, bleat, or bark.

You can record all of your frog encounters with the FrogID app, a citizen science initiative from The Australian Museum. The FrogID project aims to establish a nation-wide database of frog calls to more accurately document the diversity, distribution and breeding habitats of Australian frogs.

Using the information that we put into the app, scientists monitor frog species over time to understand how frogs and the ecosystems they live in respond to our changing planet. The data also helps prioritise conservation efforts and inform land-use planning decisions around Australia.



Getting involved with the FrogID project is easy – all you need is a smartphone. By recording frog calls with the app, you also get to discover the diversity of frogs that live in your area, as an email is sent listing the frogs identified!

I've been using the FrogID app recently, and have identified about a dozen species living on my property!

**Wendy Benfer**

## Update to QFS conduct guidelines

**I**N LINE WITH THE recently updated nature conservation regulations in Queensland, QFS will be updating the relevant section of its conduct guidelines.

The paragraph regarding the keeping of native frogs will be updated to: *"Whilst the Society does not encourage the long-term keeping of native frogs, members who choose to exercise their right to keep native frogs under the Nature Conservation*

*Act 1992 and its subordinate regulations, will ensure that all frogs are acquired and maintained lawfully, kept to the highest possible standard of animal welfare, and that the dignity of the frogs as wild animals is always respected."*

Full conduct guidelines can be found under the 'About Us' tab on the QFS website.

# Behind the scenes of the new Australian frog field guide from CSIRO publishing

## An interview with author Mark Sanders

**I**N JUNE OF THIS year, CSIRO publishing is set to release 'Photographic Field Guide to Australian Frogs'. This fully-illustrated, comprehensive guide to the frogs of Australia is written by QFS member, fauna ecologist and wildlife photographer, Mark Sanders. We asked Mark to tell us about his soon-to-be-published guide and the challenges he faced finding and photographing Australia's 240-plus frog species.

**"I was frustrated by the lack of a good Australia-wide frog field guide ... so I created one of my own."**

### What motivated you to create 'Photographic Field Guide to Australian Frogs'?

Since the early 2000s, I, like many, have been frustrated by the lack of a good Australia-wide frog field guide. Until recently, the few existing guides were either out-of-date, unreliable or difficult-to-use, making accurate identification of frog species challenging. I therefore decided to create an illustrated guide of my own, which would contain more up-to-date information on the taxonomy and distribution of Australian frogs, and therefore allow frog enthusiasts to identify frog species with greater confidence, no matter where in Australia they might be.



Excerpt from illustrated key featured in 'Photographic Field Guide to Australian Frogs'.

toes. I have also included multiple photos of each species to better capture intra-species variation in colour and pattern. Most existing guides feature only a single photo of each species, and rarely show diagnostic features, making accurate identification difficult, especially for inexperienced froggers!

### How long did it take you to compile the photos for this guide?

Hmmm, I'm not really sure – a very long time! My oldest photo in the guide dates back to the 1990's before digital cameras. However, most are taken in the last 15 years. So, I guess, more than 15 years!

### Which species proved the hardest to locate and photograph, and why?

Two species immediately spring to mind. The Walpole or Nornalup Frog (*Geocrinia lutea*) is restricted to south-western WA where it inhabits thick tea-tree swamps, and boy, do I mean thick! The tea trees, tall sedges and ferns in these swamps are virtually impenetrable, making it almost impossible to locate these tiny frogs, which call from burrows and cavities in sphagnum moss. It took me three attempts and a total of six nights of searching to finally locate and photograph this elusive species.



The elusive Walpole or Nornalup Frog (*Geocrinia lutea*) from south-western Western Australia. Credit: Mark Sanders.

The other difficult species to locate was the Elegant Frog (*Cophixalus concinnus*), a small microhylid frog that lives atop Thornton Peak, the third-highest mountain in Queensland. Compared to other *Cophixalus* species it has a shorter calling period, which is early in the wet season. Go too early, or too late, and you won't find them. The walk up the mountain can best be described as an ordeal; It starts at

**"There aren't many places in Australia I haven't visited in my quest to photograph Australian frogs."**

about 100 m and climbs to over 1100 m above sea level, with the track to the summit not well-frequented and largely overgrown. The terrain is also rocky and difficult to negotiate (especially with a 20 kg backpack full of camera

Continued on next page...



gear!), while the heat and humidity make it exceedingly tough going, even for the fittest hikers.

Anyway, after a full day hiking, I somehow managed to drag myself to the top of the mountain. For the next two nights I sat at the summit and watched the storms slide past within a few kilometres of me. While the presence of nearby storms was enough to stimulate calling, it wasn't enough to draw the frogs out of hiding. I ended up descending Thornton Peak empty handed.

### How many kilometres have you travelled in your quest to photograph frogs?

Tens of thousands! Since I started taking photos in earnest (around 2009) I've driven to north-western WA twice, travelled to south-western WA three times, northern NT twice, Cape York three times, Tasmania four times and Alice Springs twice. There aren't many places in Australia I haven't visited in my quest to photograph Australian frogs and I've been lucky to visit some stunning places in my travels.



One of the many stunning locations Mark visited in his travels around Australia photographing frogs. Credit: Mark Sanders.

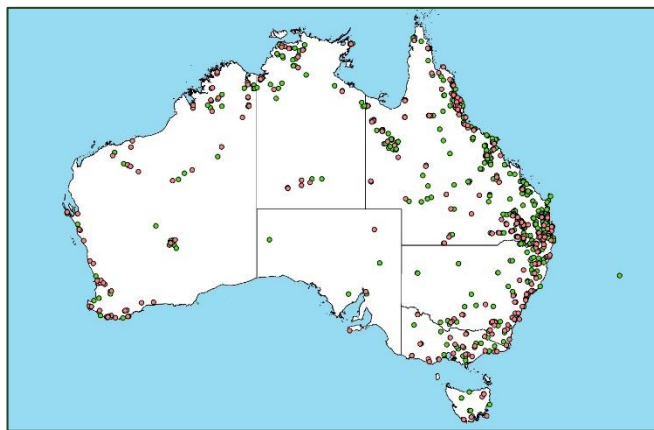
### Do you have a favourite Australian species?

I often get asked that, and I usually say it was "the last species I saw". That being said, I do really like barred frogs (*Mixophyes* species) – they are large and have a bit more character than other frogs, at least in my opinion. I also love how they respond to imitation with soft grunting noises even when you're at close range. However, having just returned from WA my current favourite is probably the Hooting Frog (*Heleioporus barycragus*), a large and beautifully-marked burrowing frog from the south-west of the state.

### What advice can you give aspiring frog photographers?

Hmmm, that's a difficult one. Good photography boils down to knowing your subject and knowing your equipment. Joining other froggers on excursions and chatting with other frog photographers is a good way to improve your success with frog photography. I cannot recommend this enough.

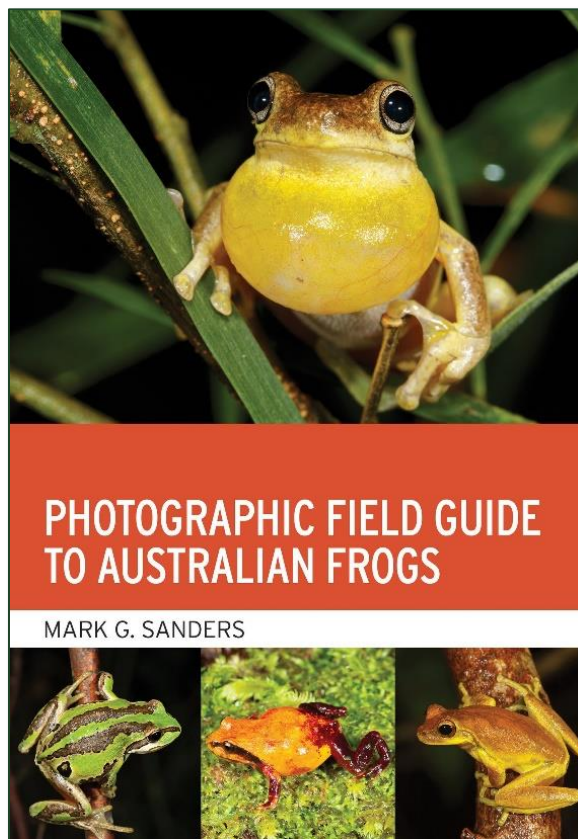
**Ed Meyer**



Frog record locations from Mark's travels across Australia. Credit: Mark Sanders.



Coastal dunes shrouded in mist, Western Australian: home of the Sandhill frog *Arenophryne rotunda*. Credit: Mark Sanders.



Cover of the soon-to-be-released 'Photographic Field Guide to Australian Frogs' by QFS member Mark Sanders (published by CSIRO Publishing).

## Letter to the Editor

Dear Editor,

We'd like to raise our concerns regarding some first flush diverter systems used in the collection of rainwater. Problem units utilize a plastic ball, which acts as a valve to separate the first few litres of dirty roof and gutter runoff water (i.e. the 'first flush') from the later, cleaner water passing into the tank. To our knowledge, only Green Tree Frogs (*Litoria caerulea*) are affected. They become trapped beneath the plastic ball and subsequently drown in the stormwater pipe that collects the first flush water.

It appears that removing the plastic ball can solve this problem, and this does not seem to compromise the quality of the collected rainwater. If you have this issue and don't want to remove the ball, you could fit a flap valve with a vent screen onto the end of the stormwater pipe where it discharges into the tank sieve (making sure no frogs are trapped inside). This latter system would need to be used in conjunction with a rainhead to prevent frogs from entering the system.

This concern has not yet been brought to the attention of the main company manufacturing rainwater harvesting systems.

**Ray & Wendy Benfer**



*A first flush system for rainwater tanks.  
Credit: Ray/Wendy Benfer.*

*Please email us with concerns about frogs or frog habitat in your area, and we will endeavour to provide you with advice and answer any questions you may have. We might also feature your email in our new 'Letter to the Editor' section, as a way to raise local issues and contribute to wider environmental discussions.*

## Soils for Science: A citizen science project from the University of Queensland

**A**S FROG LOVERS, MOST of us enjoy getting out and about in nature, and some might even enjoy getting their hands and knees dirty in the soil. If you have access to and are able to collect samples of soil, this citizen science project could be the one for you.

**"Queensland's diverse environment is ripe for the discovery of microbes that could be developed into new antibiotics."**

The World Health Organization reports that antibiotic resistance is "one of the biggest threats to global health, food security, and development today". Antibiotic resistance refers to the emergence of bacteria and fungi that don't respond to treatment with antibiotics. We often hear these antibiotic-resistant bugs referred to as 'superbugs'.

To help in the fight against antibiotic resistance, a team at the Institute of Molecular Bioscience at the University of Queensland, led by Professor Rob Capon, have launched 'Soils for Science'. This citizen science initiative aims to find new antibiotics to address this growing global issue.



The Soils for Science website tells us that "more than half of all antibiotics available worldwide have been developed from microbes found in soil and nature", and that Queensland's diverse environment "is ripe for the discovery of microbes that could be developed into new antibiotics, anti-fungals and other medicines".

To get involved all you need to do is request a soil kit (which you can do directly from the project's website: <https://imb.uq.edu.au/soilsforscience>), collect and register your soil sample, and send it to the lab in a pre-paid bag.



## From the Secretary's Desk

**A** MEMBER OF THE public called this month after finding a frog in distress on her property. The frog's face and feet were covered in a clear slime that water could not easily dissolve. I spoke to Ed, a QFS committee member, who advised that a veterinary surgery would be the best place for it.



*Frog with clear slime on its face.  
Credit: A woman with a love for frogs.*

The women took the frog to the Old Mill Animal Vet in Dayboro, and asked if I would follow up on the frog's progress. I was told that the frog had been soaking in a special bath and that the slime was dissolving. The frog had also regurgitated a hairy seed case, and the vet told me that the frog may have produced the slime to try to get rid of it. I am happy to report that the frog was able to return home the following day.

The staff at the Old Mill Animal Vet appear to have a genuine love for native species, and I can recommend them to anyone living in the area!

If you have any questions about frogs on your property, please get in touch!

**Jenny Holdway**



### DATES FOR YOUR DIARY ...

**9-11 July 2021**  
**Queensland Garden Expo,**  
**Nambour showgrounds**



A warm welcome to new QFS members!

David Austin, Timothy Connolly, Jacob Champney, William Gibson, David Champney, Melanie Cavanough, Ryan Carleton, Zach Malcomson, Pamela & Robert Watson, Cathey Johnstone & Tania Giles.

### Executive Committee

**PATRON** – Dr Glen Ingram

**PRESIDENT** – Ashley Keune

Email: president [at] qldfrogs.asn.au

**VICE PRESIDENT** – Ray Benfer

Email: vicepresidents [at] qldfrogs.asn.au

**SECRETARY** – Jenny Holdway, Ph: 0491 140 720

Email: secretary [at] qldfrogs.asn.au

**TREASURER** – Jennifer Singfield

Email: treasurer [at] qldfrogs.asn.au

**EVENTS AND INITIATIVES COORDINATOR** – Jono Hooper

Email: events\_initiatives [at] qldfrogs.asn.au

### Newsletter Editor

**Alice Carruthers**

Email: editor [at] qldfrogs.asn.au

### Frogshop Sales

**Jenny Holdway** – Ph: 0491 140 720

Email: frogshop [at] qldfrogs.asn.au

**PLEASE EMAIL [EDITOR@QLDFROGS.ASN.AU](mailto:EDITOR@QLDFROGS.ASN.AU)  
WITH ARTICLES FOR INCLUSION IN *FROGSHEET***

**DEADLINE FOR MID-WINTER  
FROGSHEET CONTRIBUTIONS IS  
1<sup>ST</sup> JULY 2021**