

# FROGSHEET

[www.qldfrogs.asn.au](http://www.qldfrogs.asn.au) | questions [at] qldfrogs.asn.au | [f/qldfrogsociety](https://www.facebook.com/qldfrogsociety) | [@qldfrogs](https://www.instagram.com/qldfrogs)

## KROOMBIT FROGSEARCH 2019: GOOD OUTCOMES DESPITE 'OBSCENELY' DRY WEATHER



**Ed in despair, standing in a dry creek. Credit: E. Meyer**



**A dry Kroombit Creek. Credit: E. Meyer**

In 2019, QFS was successful in obtaining funding from the Queensland State Government for a 3-year project supporting monitoring and recovery of threatened frog species at Kroombit Tops National Park. One of the key aims of this project is to obtain more accurate, up-to-date information on the current status of threatened frog species at Kroombit, in particular the critically endangered-Kroombit Tinkerfrog, one of Australia's rarest and most highly threatened frogs. As part of this project, QFS has committed to undertaking spring and summer surveys for threatened frogs at Kroombit Tops over the next three years.

The first of these surveys was held in early December 2019, when 6 QFS volunteers travelled to Kroombit Tops National Park with frog expert Harry Hines of the Queensland Parks and Wildlife Service (QPWS). With Queensland in the grip of drought, conditions during the December 2019 Kroombit Frogsearch were hot and exceedingly dry. Due to a severe fire weather warning, we were forced to spend our first night camped at Ubobo, before heading up to Kroombit Tops the following morning, once conditions had eased.

With the extremely dry conditions preceding and during surveys, many of the creeks and dams at Kroombit Tops were completely dry and survey results at most sites were poor. Despite the poor conditions, both the Kroombit tinkefrog and Kroombit treefrog were recorded at a num-



## EXECUTIVE COMMITTEE

**PATRON** - Dr Glen Ingram

**PRESIDENT** - Jennifer Singfield

Mob: 0438 690 359

Email: president [at] qldfrogs.asn.au

**VICE PRESIDENT** - Dan Ferguson, Ray Benfer

Email: vicepresidents [at] qldfrogs.asn.au

**SECRETARY** - Jenny Holdway

Ph: 07 3366 1868

Email: secretary [at] qldfrogs.asn.au

**ACTING TREASURER** - Lee-Anne Longton

Email: treasurer [at] qldfrogs.asn.au

**MINUTES SECRETARY** - Lee-Anne Longton

Email: thelongtons [at] bigpond.com

**EVENTS & INITIATIVES COORDINATOR**

Jono Hooper

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

**KROOMBIT FROGSEARCH COOD.** - Dr Ed Meyer

**COMMITTEE MEMBER** - Hunter McCall

## 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

## THANKS TO OUR SUPPORTERS



## AREA COORDINATORS

### ASHGROVE

Jenny Holdway – Ph: 3366 1868

Email: qldfrogs [at] bigpond.net.au

### BRIEBIE ISLAND/CABOOLTURE

Pauline Fitzgibbon

Email: [fitztho01 \[at\] tpg.com.au](mailto:fitztho01@tpg.com.au)

### BRISBANE CENTRAL

Stefan Durtschi – Ph: 3891 6853

Email: [comlab \[at\] optusnet.com.au](mailto:comlab@optusnet.com.au)

### BROOKFIELD

Phil Bird - Email: [frogphil \[at\] gmail.com](mailto:frogphil@gmail.com)

### BUNDABERG

David Flack - Email: [litoria.chloris82 \[at\] gmail.com](mailto:litoria.chloris82@gmail.com)

### CHERMESIDE

James Hansen – Mob: 0427 827 443

Email: [jamna \[at\] powerup.com.au](mailto:jamna@powerup.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](mailto:eva.ford@mrccc.org.au)

### NORTH BURNETT

Nadia Cambell – Ph: 4166 2049

Email: [admin \[at\] goondicumpastoralco.com.au](mailto:admin@goondicumpastoralco.com.au)

### PINE RIVERS

Rod Pattison - Ph: 3264 6391

Email: [rjpattison \[at\] hotmail.com](mailto:rjpattison@hotmail.com)

### REDLANDS

Steve Homewood – Ph: 0423 036 676

Email: [bhomewoo \[at\] bigpond.net.au](mailto:bhomewoo@bigpond.net.au)

### SOMERSET REGION

Jono Hooper

Email: [events\\_initiatives \[at\] qldfrogs.asn.au](mailto:events_initiatives@qldfrogs.asn.au)

### SOUTH BURNETT

Wendy Benfer

Email: [raywendy.benfer \[at\] bigpond.com](mailto:raywendy.benfer@bigpond.com)

## 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 **\$\$6,554.39** (+ \$1.00 since Summer edition)



Stay tuned for the Winter FrogSheet to read all about the latest (February 2020) FrogSearch!

**2019 Kroombit FrogSearch Team (left to right: Ollie, Harry, Coen, Ed, Jono, Ben and Tony) Credit: E. Meyer**

ber of sites surveyed in December 2019. Numbers of both species, however, were generally much lower than on previous surveys conducted by QPWS. Whether this is due to the reduced detectability of frog species or a significant decline in frog numbers is presently unclear. Follow-up surveys under better (wetter) conditions and data from automated call recorders deployed at monitoring sites during the December 2019 Kroombit FrogSearch should provide us with a better understanding of how these species are faring.



**Critically endangered Kroombit Treefrog. Credit: J. Hooper**

## UPCOMING EVENTS

**10-12 July 2020 - QLD Garden Expo at Nambour Showgrounds. QFS Display and Sales.**

Keep updated via E-news Emails and our Facebook page.

## FROG QUESTIONS EMAIL

Our Questions email address is again regularly monitored. For any questions regarding frog and toads not already answered on our website, email questions [at] qldfrogs.asn.au

## 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/>

## WELCOME, NEW MEMBERS

Fraser Family, Ryan Gear, Julie Ryan, Mark Cosgrove, Daniel McCrawley, Trenchard Family, Takarakka Bush Resort, Roy Farman, Keith Cardwell, Bennett Family, Muriel Familiar Lopez, Kate Tunstill, Stephen McIlwaine.

## NEWSLETTER EDITOR POSITION VACANT

Jono has decided to step down from the role as *FrogSheet* newsletter editor and this will be his last edition.

We are keen to welcome a new editor to the role from this point forward and look forward to a fresh newsletter for the Winter edition.

Please email editor [at] qldfrogs.asn.au to express your interest!

## PRESIDENT REPORT

In these troubling times I will start with a success – the Kroombit Tops FrogSearch project is going well.

I wish to thank the volunteers who donated a week (or two) of their time for this project. They seem to be enjoying this adventure while working hard up there. Thank you very much for your time and efforts.

Due the Coronavirus (Covid-19) situation - there is really nothing for me to say as we are all in the same boat.

So please take care and look after yourself – which is the best thing you can do for your family and friends.

Sincerely,

Jennifer Singfield

## 2020 RIC NATTRASS GRANT RECIPIENT ANNOUNCED

This year's winner of our 2020 Ric Nattrass Research Grant is Colin Hird of the school of Biological Sciences, University of Queensland. Coen is conducting his Ph.D on investigating the threat of harmful UV radiation doses in native amphibians and their capacity for adaption to this stressor. While there has been laboratory-based research done on the effects of UV radiation on various life stages of amphibians; Coen is a bit of a trail blazer with this issue and he has designed and built ultraviolet radiation (UVR) data loggers to try and understand the effects of UV radiation in situ.

Incident ultraviolet radiation (UVR) from sunlight is a powerful natural stressor of amphibians, capable of

causing both lethal and sublethal effects. Increased UVR as a result of anthropogenic activity has been correlated with amphibian declines worldwide, particularly at pristine high-altitude sites. While the negative effects of UVR on amphibian life stages are well established from laboratory-based studies, the ecological relevance of laboratory-based UVR exposures needs examining. In particular, no study has directly quantified biologically meaningful UVR doses that amphibians actually receive in nature. Furthermore, few studies attempt to understand potential UVR doses occurring within the diversity of amphibian habitats. This study will begin to fill this knowledge gap by directly quantifying UVR doses in situ along important environmental gradients.



Coen deploys a UVR data logger. Credit: D. McCawley

Specifically, Coen aims to employ long term monitoring of UV-B and UV-A doses in amphibian habitats across East coast of Australia at high and low elevations and latitudes. The results will be used to determine if there is the potential for harmful UVR doses in the larvae of many native amphibian species. To do his Coen has designed and built UVR data loggers that will be deployed in the field along with short term UVR responsive dosimeter film, to measure environmental UVR doses in key amphibian habitats. Currently Coen is finalizing data logger construction and has conducted preliminary trials of the UVR-dosimeter film at Kroombit Tops and Mt Baw Baw with promising results. Ultimately, this research will provide critical insight toward actual UVR doses in amphibian habitats and the capacity for potentially harmful UVR doses in amphibians. From Coen's sampling efforts in the montane coastal areas this project will directly contribute to the conservation knowledge of Queensland frogs. Coen's sampling efforts



Rare photo of Coen at Kroombit Tops. Credit: D. McCawley



in the montane areas directly contribute to the conservation knowledge of Queensland frogs.

We look forward to hearing an update of Coen's research at our AGM later this year.

Jennifer Singfield ■

## MONITORING IS THE WAY

In my conversations I am hearing many concerns from landholders about the reduction in insect and frog life over the past several years. I am one of them but I am very unsure whether to be alarmed or not. The problem is that I can't compare it to a period of similar weather and water flow because, either I didn't take notice, have forgotten or don't have anyone else that recorded information particular to my concern in my area.

So while our general observations may be completely well founded they raise questions; Is it really happening and why? Has it happened before? Will the diversity and numbers come back?

Difficult questions to answer, but in short, our view of the earth is usually over a narrow timeframe and, it has never been like this before because we live in a changing world. The answers probably look like 'Probably', 'Because the weather is dry for long periods and everything is interconnected', 'Very likely', 'Maybe'. The more complex considerations are around what we want in the future and how resilient is our flora and fauna. Most of us quite like the natural world around us as it is, we don't like much change and we certainly don't like to endure harsh conditions and see a reduction in species.

To know for certain that there is a general trend in species presence and/or abundance takes many years of monitoring in a repetitive way and is something scientists and community members spend great resources on doing. In fact we need to be monitoring all the time if we have a genuine interest in something. For instance, we have collected daily weather records for a very long time and we can draw conclusions from the data about averages, trends and even predictions into the future.

Weather is important for our lives in so many way and so it attracts a lot of attention. I personally think that to monitor frogs is useful because they respond quickly to environmental changes. They are intricately woven into

the aquatic, terrestrial and atmospheric components of the environment, have relatively short lifecycles so that populations respond rapidly to condition changes, they rely on food sources that respond to change even faster, and their tadpole phase is completely reliant on the persistence of water during development. A tenuous life!

This latest dry period revealed to us how quickly everything can become dire in the absence of water. Waterways completely dried, plants responded with mass leaf fall, micro-climates became less favourable, chemical cycles wound down, food became scarce. The rain has come, the frogs are calling, albeit with less

overall volume it seems, and breeding is on. Recovery is in train we hope.

Again to monitoring. Observation and memory are fine for conversation but they don't carry the same weight as actual records. During this year's Find a Frog in Feb-



Green Treefrog metamorph

*Credit: J. Dean*

ruary we have been encouraging people to observe and record frogs they find at a chosen location each year. We have been working with schools to set up monitoring transects and listening posts for students to visit each year as well.

So far we have four schools taking this on and it's a great learning opportunity for young people, teachers and parents alike. What to do with the data is another world of interest. We are likely to see different trends for different species as they adjust and adapt. But the question will remain – is the change acceptable and, if not, what do we do about it? At present concerned folk are making habitats more resilient for frogs and other fauna, and working to reduce their impact on the world. Change is inevitable but we can try to make it less abrupt to give frogs and others a chance.

Go to <http://mrccc.org.au/frog-in-february/>

Eva Ford, MRCCC

FFF is funded by all the councils of the Mary River catchment; Sunshine Coast, Noosa, Gympie and Fraser Coast.



## AUSTRALIA'S FROGS, REPTILES AND INVERTEBRATES ARE AT RISK OF EXTINCTION FROM BUSHFIRES TOO

8 January 2020 | Joe Khan | ABC News

**Several Australian animals could be pushed to the brink of extinction by the current bushfire crisis, including critters you probably haven't heard of before.**

Australia could lose multiple species as a direct result of the fires — and even after the flames die down, loss of habitat and food will be an ongoing issue.

The glossy black cockatoos on Kangaroo Island have, so far, survived (two-thirds of the island remains unburnt), but the future of the Kangaroo Island dunnart is looking bleak after its entire known range was burned in the last week.

Mammals and birds like these are probably the creatures that many of us will notice missing from our bushland, and are also the most confronting to see hurt or killed. But Australia's unique amphibians, reptiles and invertebrates are also in danger.



**Endangered alpine bog skink**

**Credit: M. Haines**

### *Skinks at risk*

There are concerns for a group of skinks living in alpine areas of New South Wales and Victoria. These skinks are unique because they grow a placenta and give birth to live young — something usually associated only with mammals.

Over the last 10 years, Oliver Griffith has visited alpine areas to study these skinks, but in the last month fire has damaged every one of his study sites.

"The skinks are a really special animal that we have an opportunity to understand in Australia," said Dr Griffith, who is an ecologist at the University of Melbourne.

The endangered alpine bog skink is at particular risk from these fires, Dr Griffith said.

"The problem with that species is the population distributions are so small that events like this could wipe out a whole population.

"Then it's probably gone forever because there's no

connectivity between these sites.”

Local extinctions like this can mean the loss of a huge amount of genetic diversity, which then makes the remaining populations more vulnerable.

Dr Griffith also said many populations of one of his other study species, the southern grass skink, will also have been lost.

#### *Corroboree frogs’ future unclear*

Fires have also affected the alpine habitat of the endangered southern corroboree frog and the forest and sub-alpine habitat of the endangered northern corroboree frog.

A spokesperson for Zoos Victoria confirmed that they did not remove any southern corroboree frogs from their natural habitats before the fires.

“While we know the region they inhabit has been impacted by the fires, the actual number of affected southern corroboree frogs is not known as the impacted areas are still unsafe to enter,” they said in a statement.

Zoos Victoria and Taronga Zoo still have healthy ‘insurance’ populations of captive-bred frogs at their facilities.

It’s unlikely other groups involved in corroboree frog conservation accessed their sites before the fire, but that hasn’t been confirmed.

Some of the other threatened amphibians and reptiles likely to be affected by fires this season include the Guthega skink in the Bogong High Plains, Martin’s toadlet in east Gippsland, the alpine she-oak skink, the Blue Mountains water skink, the broad-headed snake in NSW, and the hip-pocket frog in NSW and Queensland.

#### *Alps could change forever*

In the Australian Alps, the bogs, fens, meadows and heath are all unique ecosystems unto themselves, and none of them are particularly resilient to fire, said Kate Umbers from Western Sydney University.

“As the fires come through, it’s those species that are quicker to recover that will move in first and get a foothold,” said Dr Umbers, who is an ecologist studying alpine animals.

“Shrubs are likely to encroach onto the alpine meadows and daises might not be able to recover as quickly,” she said.

“So while the organisms in the shrubs will increase, the ones of the meadows, bogs and fens will be decreasing.

“A big ecological turnover is possible if the system doesn’t get a chance to recover on the whole.”

Dr Umbers studies insects like grasshoppers, and much like the alpine skinks, her study species are found in isolated populations on different alpine peaks and bluffs.

Her main concern is losing genetic diversity, rather than individual animals.

“The chances of them being completely wiped out is low, but with a decrease in numbers goes the genetic diversity,” Dr Umbers said.

“Without genetic diversity in a population the species is vulnerable to disturbance because they don’t have the toolkit to respond and adapt.

“It matters which individuals survive, not just that any individuals survive.”

Read more at <https://www.abc.net.au/news/science/2020-01-08/insects-invertebrates-frogs-affected-by-bushfire/11843458>



**Southern Corroboree Frog. Credit: S.Kesteven**





# DEFENCE FORCE FLIES EXPERTS TO KOSCIUSZKO IN CORROBOREE FROG RESCUE MISSION

**Australian Defence Force has flown a team of experts to Kosciuszko national park to rescue the endangered southern corroboree frog after protective enclosures were destroyed by bushfire. *Credit: Australian Defence Force***

**30 January 2020 | Lisa Cox | The Guardian**

Work has begun to preserve endangered southern corroboree frogs after protected areas were destroyed by bushfires

The Australian defence force flew threatened species experts into remote parts of Kosciuszko national park after bushfires burnt enclosures for the southern corroboree frog.

Three out of four enclosures that protect the critically endangered frogs from the deadly chytrid fungus were burnt in recent fires and the fourth is still threatened by an active fire.

The NSW environment minister, Matt Kean, said experts were flown in to assess the impact of the fires. They found several of the frogs had died.

Habitat inside the enclosures, as well as the irrigation equipment, has been damaged, but the fences themselves remain intact.

Kean said the team of experts had begun work to

ensure the surviving animals had adequate refuge and food.

“Sadly, a number of the frogs perished and so all our efforts are now focused on protecting the remaining frogs by reinforcing moist habitat refuges in the enclosures and checking there’s enough food for the colourful but tiny amphibians,” he said.

Kean said it was a setback for the critically endangered frog, which is one of the species environment groups have said they hold immediate concerns for as a result of the fires.

He said the species was still secure because of captive breeding programs at Taronga Zoo, Melbourne Zoo and Healesville Sanctuary.

Experts warned weeks ago there could also be concern for the critically-endangered northern corroboree frog if fire moved into the Namadgi national park, which has now occurred. Namadgi national park is not far from Ginini Flats, where the northern corroboree frog is found.



Deon Gilbert is a threatened species biologist with Zoos Victoria. He said the southern corroboree frog lived in the sort of environment where fires occur and should be able to respond to a certain amount of fire in the landscape.

"The compounding issue here is there are repeated fires over the short-term destroying habitat," he said.

## WHY THE FREDDO FROG CHOCOLATE HAS 'DISAPPEARED' FOR A GOOD CAUSE

5 March 2020 | News.com.au

**It's one of the most iconic sweet treats out there — but Cadbury's famous Freddo frog will be vanishing from shelves for a good cause.**

Cadbury's Freddo is a firm family favourite — but the beloved chocolate frog is going to be disappearing for a spell.

The chocolate company has decided to give the world's most delicious (and edible) amphibian a rest in favour of his web-footed friends that need a bit of help.

Instead critically endangered frogs from Australia and New Zealand are taking the spotlight on Freddo packets to raise awareness of the species, which are sadly nearing extinction.

The critically endangered frogs to be featured on Cadbury's Freddo packaging include the northern and southern corroboree frogs, Baw Baw frog, spotted tree frog, Tasmanian tree frog, armoured mist frog, Hochstetter's frog, Archey's frog and kroombit tinker frog.



As well as this Cadbury will donate \$600,000 over three years to Zoos Victoria and Conservation Volunteers Australia to help the endangered frogs.

"We're so proud to be able to work with these frog experts to deliver programs that will give these endangered species a chance to repopulate and



3D render of the Kroombit Tinkerfrog.  
Credit: Cadre Pictures

flourish," Cadbury Dairy Milk Freddo marketing manager Katrina Watson said in a statement.

"It's a long-term commitment to ensure the projects can deliver real outcomes for the survival of these amazing animals."



The special packaging will be available on Cadbury's 15g, 35g and 200g Freddo packs and will have an AR symbol, meaning you can access fact sheets and videos about the endangered species.

Freddo's rebranding comes after it donated 100 per cent of its profits from Carmello Koalas, Freddo and Furry Friends towards bushfire

charities for a week in January.

It also just recently announced it would be giving away chocolate Easter eggs in bushfire-affected areas.



#qldfrogs

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



Southern Orange-eyed Treefrog (*Litoria chloris*) by @a.jphotographs



Giant Barred Frog (*Mixophyes iteratus*) by @featheredspiders



Green-striped Frog (*Cyclorana alboguttata*) by @tylermonachino\_wildlife

### NEXT EDITION

Thankyou to those of you who contributed to this newsletter.

**Deadline for Winter *Frogsheet* contributions is  
21 May 2020**

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

**SURFACE MAIL**



Frogsheet - Autumn 2020  
Print Post Approved  
PP424022/00619