




MID-AUTUMN 2021

FROGSHEET

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

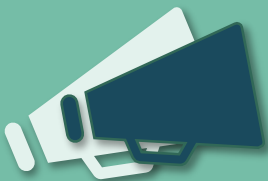
The problem with (feral) pigs: Page 4

Image: A feral pig (*Sus scrofa*) ploughing through mud at the margins of a wetland. Credit: Ed Meyer



NEW: 'Letter to the Editor' section

What's going on in your area?
Further details on page 4.



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Want to plant a frog-friendly garden?

Find out how on page 2.

Check out our comprehensive planting list on page 3.



How can frog surveying methods be improved?

Mickayla Heinemann (RNRG 2021 winner) aims to find out!

Read more on Page 3.

Thank you
to our
supporters



Public Trust Fund: Total now stands at \$3,928.61

President's Report

HELLO AGAIN, ALL OF our QFS members. I hope that that everyone is enjoying the year so far, and that you have had a reasonable amount of wet weather (unfortunately – as you have probably seen – many places have been flooded in recent weeks). While some spots are yet to receive rainfall this season, if you have had wet weather recently this is the perfect time to get out at night to look for frogs. The frogs around my property have been breeding in the front paddocks that flooded, and I was happy to find 11 different species on one night in the same location!

Behind the scenes at QFS we have been organising some events for later in the year, and we'll let you know soon what's coming up in the calendar. Until then, some of our committee will be involved as guest speakers at other workshops and presentations. I actually recently spoke at the World Science Festival, held at the Bulimba Creek Catchment Coordinating Committee Hub in Carindale, Brisbane.

At the World Science Festival, I delivered a talk on different types of frog, how to identify common species in the area, and how to attract frogs to your garden – if you are interested in making your garden more frog-friendly, check out the tips and advice in our first article below. My talk at the Science Festival was well received and there was lots of positive feedback and questions. Afterwards, I set up a small display and answered questions about frog friendly gardens, toads and frog identification.

I'm still receiving lots of emails about frog identification and advice, which I think is excellent. One particular email I received this month has inspired us to create a 'Letter to the Editor' section in our newsletter so that



A large toadlet (Pseudophryne major), a less common native frog species found by QFS President Ashley Keune on his property this month. Credit: Ashley Keune

we can shine a spotlight on environmental concerns impacting frogs or frog habitats found in our members' local areas. You can read more about this on page 4.

In other news, we have just submitted a couple of audio snippets to the ABC for their *Off Track* radio program, which airs on Saturdays at 5:30 am (and is repeated on Sundays at 1:30 pm and Thursdays at 11:30 am). The audio snippets are on identification of and reactions to different frog calls. I was also interviewed by Kate O'Toole on Saturday Breakfast on ABC Radio Brisbane for World Frog Day on the 20th March. It is great to have these opportunities to spread the word about frogs in our community.

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

Warm regards,

Ashley Keune



Attracting frogs to your garden

AUSTRALIA HAS AN INCREDIBLE diversity of frogs, with about 240 already described (and probably more to be discovered). Some of the greatest diversity can be found on our own doorstep, in Australia's eastern regions. The presence of frogs is a sign of a healthy environment, and despite their diversity they are declining in numbers, with many classified as endangered.

Creating a frog-friendly garden can help to support the frogs in your area, whose natural habitat may have been disturbed by the human environment.

A well-vegetated garden that has shady trees, shrubbery and reedy grasses provides important shelter for frogs and attracts the insects on which they feed. Using a wide variety of local native plants with different heights creates a more natural habitat that can cater to several frog species.



Above: Frog heaven! Rocks, logs and leaf litter around a pond. Credit: Wendy Benfer.

Front page: Juncus prismatocarpus. Credit: Wendy Benfer

Continued on next page...

Hollow logs, moist crevices, flat stones and heavily mulched areas give frogs a safe refuge during the day. A permanent water source not only provides a breeding site for frogs, but allows them to replenish the water content in their bodies on hot and/or windy days.

“... frog numbers are declining, and many species are endangered ... a frog-friendly garden can help to support the frogs in your area.”

In his book, “Attracting Frogs to your Garden”, Kevin Casey advises that a wide variety of vegetation, rather than a small number of specific plants, will increase the likelihood of individual frogs finding their ideal home. This approach will also make your yard attractive to several different species!

The aim when planting a frog-friendly garden is to have a balanced mixture of plant types: trees, shrubs, grasses, vines, sedges, ferns and a few aquatic plants for the pond. Plants with smooth, strappy stems are easy for frogs to climb, and those with broad-leafed foliage are a favourite resting spot. Remember: Don't be too tidy! Allow some wild areas to grow in your garden.

To the right, I have listed some of the plants included around a pond we set up a couple of years ago, some of which were already growing naturally in our garden.

Wendy Benfer

The Ric Natrass Research Grant 2021

CONGRATULATIONS TO MICKAYLA HEINEMANN, recipient of the 2021 Ric Natrass Research Grant! Mickayla is currently undertaking her Honours degree at the University of Southern Queensland, and is researching how methods for surveying frog populations can be improved. She told us that “while there are many techniques that do a great job, they all have limitations, and some species are either under-reported or completely missed!”



Above: Mickayla making friends with a juvenile green tree frog (*Litoria caerulea*). Credit: Mickayla Heinemann.

Front page: A short-footed frog (*Cyclorana brevipes*). Credit: Mickayla Heinemann.

Her research asks three main questions:

- Does attracting insects using artificial light make pitfall trapping more effective?
- Is PVC or bamboo pipe better for surveying tree frog species?
- Can photographic identification be used in mark-recapture studies?

Mickayla is also using cameras around pitfall traps to record how many escape or are predated directly from them.

Mickayla's research aims to improve data collection methods to assist with the conservation of

Plants for your frog-friendly garden

HERBACIOUS PLANTS AND GROUND COVERS

Alpinia caerulea, Native Ginger cultivar
Alternanthera denticulate, Joyweed
Alocasia brisbanensis, Cunjevoi
Artanema fimbriatum, Koala Bells
Calotis cuneifolia, Burr Daisy
Calotis lappulacea, Yellow Burr Daisy
Centratherum riparian, Native Daisy
Commelina diffusa, Native Wandering Jew
Dichondra repens, Kidney Weed
Geranium homeanum, Native Geranium
Afrohybanthus stellarioides, Spade Flower
Mazus pumilio, Mazus
Myriophyllum crispatum, Water Milfoil
Proiphys cunninghamii, Brisbane Lily
Ranunculus inundates, River Buttercup
Tetragonia tetragonioides, Warrigal Greens
Viola betonicifolia, Arrow-leaved Violet

SMALL TREES AND SHRUBS

Acacia fimbriata, Fringed Wattle
Acmena smithii, cultivar Minipilly
Eugenia reinwardtiana, Coastal Cherry
Graptophyllum sp., 'Emu Creek'

GRASSES, RUSHES, SEDGES AND STRAPPY PLANTS

Crinum sp., Swamp Lily
Cyperus gracilis, Slender Flat-sedge
Dianella brevipedunculata, Blue Flax Lily
Eleocharus equisetina, Spike Rush
Juncus prismatocarpus, Branching Rush
Juncus usitatus, Common Rush
Lomandra cultivar
Oplismenus aemulus, Creeping Beard grass
Xyris complanata, Feathered Yellow-eye Hatpin

PLANTS THAT REPRODUCE BY SPORES

Adiantum hispidulum, Rough Maidenhair Fern
Azolla pinnata, Water Fern (you will need to remove some occasionally but it makes excellent mulch for other plants)
Lichens and Mosses

VINES

Cayratia clematidea, Slender Grape
Hoya australis, Waxflower

Australian native frogs. She has completed her field work surveying two sites at Spicers Hidden Vale in Grandchester, South East Queensland, and is in the process of analysing her data.

She says she is “happy to report there appears to be healthy populations of a wide diversity of native frogs in this region of Queensland.” All of us at QFS are looking forward to following Mickayla's research and finding out the answers to these important research questions!

Letter to the Editor

Dear Editor,

I own a nature refuge that has water in two small dams and is home to a small number of koalas, echidnas, sugar gliders, great gliders and glossy black cockatoos. We also had four species of frog living on the property until about 5 years ago, when dingoes were baited in the area.

When the dingoes disappeared (we stopped seeing canine footprints), feral pigs invaded. They ploughed up the soil and totally destroyed the edges of the dams by consuming or killing the reeds. This made the survival of frogs there virtually impossible.

If we still had the odd dingo about, the pigs wouldn't be able to get a foothold and the native frogs would still be there.

Believe it or not, the pigs actually present a greater danger to us on our property than dingoes do – particularly if we accidentally surprise the pigs while walking through dense vegetation.

I think it is about time that there was more emphasis placed on conserving and restoring intact ecosystems – this includes having apex predators!

Name Withheld.

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.



One of the dams in Oct 2015, when dingoes were still in the area.



The same dam in May 2018, heavily disturbed by feral pigs.

The problem with (feral) pigs

FERAL PIGS REPRESENT A significant threat to Australia's native flora and fauna, particularly in mesic (wetter) parts of eastern and northern Queensland, where they occur at relatively higher densities due to an abundance of food, shelter and water.

"As well as preying on frogs, feral pigs ... degrade the wetland habitats that frogs use for breeding."

As generalist omnivores, pigs feed on a wide range of native plants and animals including, amongst other things: soil invertebrates, molluscs, crustaceans, reptiles, frogs, and the eggs of ground-nesting birds, turtles and crocodiles.

While the impact of pig predation on Australian frog populations are not well studied, anecdotal evidence suggests foraging pigs could have a significant impact on their numbers. The stomach of a single pig shot on the Cape York peninsula contained over 150 native frogs!

As well as preying upon frogs, feral pigs may pose a threat to frog populations through the disturbance and degradation of wetland habitat that frogs use for breeding, where food



A feral pig (Sus scrofa) going about its business. Credit: Ed Meyer.

and water are plentiful. When foraging for food, pigs can cause significant damage to streams, soaks and swamps. Nutrient inputs from pig urine and faeces can also adversely affect water quality in these important aquatic habitats.

Changes to the structure and species composition of vegetation around wetland habitats due to pig feeding activity, as well as the spread of weed seeds by pigs, may also impact negatively on frog species by reducing the availability of suitable shelter and/or foraging habitat.

Continued on next page...

Pigs may also pose a threat to native frog species through the spread of pathogenic (disease-causing) organisms, such as the amphibian chytrid fungus – the pathogen responsible for numerous amphibian population declines and extinctions in Australia and abroad.

To learn more about the threat feral pigs pose to our native

flora and fauna and efforts to manage the impacts of pigs on Australia's biodiversity, you can download and read the Threat Abatement Plan for Feral Pigs from:

<https://www.environment.gov.au/biodiversity/threatened/publications/tap/feral-pig-2017>.

Ed Meyer

Feral pigs at Kroombit Tops

At Kroombit Tops, south-west of Gladstone, feral pigs have emerged as an important threat to the critically endangered Kroombit tinker frog (*Taudactylus pleione*).



An area of forest floor at Kroombit Tops heavily disturbed by feral pigs. Credit: Ed Meyer.

Fencing out pigs from their habitat is one way of managing the impact of feral pigs on the few remaining populations of this highly threatened species.

This winter, **Queensland Frog Society volunteers will be travelling to Kroombit Tops to install exclusion fencing around an area of Kroombit Tinkerfrog breeding habitat currently impacted by feral pigs.** This trip is one of a number of activities in the area currently being funded by a Queensland Government Community Sustainability Action Grant.

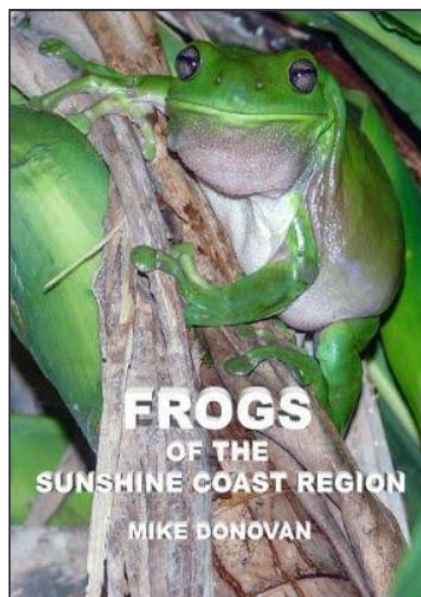
For more information on this trip and others related to this project, please contact our Events and Initiatives Coordinator at: events_initiatives@qldfrogs.asn.au.

Book Review: 'Frogs of the Sunshine Coast Region: A Photographic Guide'

THIS SELF-PUBLISHED PHOTOGRAPHIC guide to frogs of the Sunshine Coast Region was produced by QFS member and Sunshine Coast-based naturalist Mike Donovan. Comprising 143 pages of text and photos, 'Frogs of the Sunshine Coast Region: A Photographic Guide' provides detailed information on the appearance, habitat preferences and calls of the 34 extant (living) frog and toad species currently known from the broader Sunshine Coast area, including Noosa North Shore and the Sunshine Coast hinterland. Another three frog species occurring just outside the Sunshine Coast region are included as 'extra-limital' species in this book.

This easy-to-use guide is aimed largely at inexperienced froggers wanting to identify the many frog and one toad species occurring in the Sunshine Coast region. For the benefit of novice froggers, the author has avoided the use of scientific terminology/jargon and provided several photographs of each of the species included in this publication. The numerous photos

included in this guide – an undoubted strength of this publication – help capture the variation in colour and pattern within species that can make accurate identification of frogs difficult, especially for those new to frogging. A key (in the form of a simple flow chart) has also been included to assist with identification of locally occurring frog and toad species.



The information provided in 'Frogs of the Sunshine Coast' is based, in large part, on the author's considerable experience frogging in this area. This is both a strength and, at times, a weakness of this guide. Supplementation with insights from other local frog experts would no doubt address any shortcomings.

Notwithstanding the above criticism/limitations, the guide would serve as a useful introductory reference for inexperienced froggers seeking greater familiarity with the many frog species occurring in the Sunshine Coast Region.

Copies of 'Frogs of the Sunshine Coast Region: A Photographic Guide' by Mike Donovan can be purchased at a cost of \$35 (incl. GST) + postage from QFS or directly from Mike Donovan via <https://www.reptilesinfocus.com.au/>.

Ed Meyer

From the Secretary's Desk

WHAT A LOT OF joy these past couple of months have brought to people! I have received many happy phone calls and emails from people telling me that they have seen frogs on their property, with a couple of people making 'frog hotels' to encourage them to stay around. I haven't heard back, but I do hope it worked!

I have to mention that one caller wanted to buy or gather some frogs for their hotel. I made it very clear that wild frogs cannot be moved from their natural habitat, and if you buy a frog from a shop then it has to be housed in an aquarium-style home and cannot be released.

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

Jenny Holdway



A DIY frog hotel. Credit: The proud new owner of a homemade frog hotel!



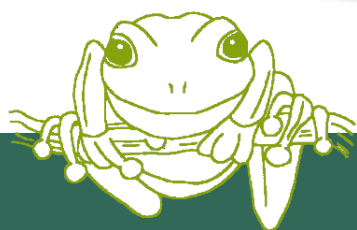
DATES FOR YOUR DIARY ...

Sun 16th May, 1-3 pm

Talk: Cane toads and their control
Mary Cairncross Environmental Centre

9-11 July 2021

Queensland Garden Expo,
Nambour showgrounds



A warm welcome to new QFS members!

Isaac Jacobson, Jeanette Seymour, Chelsea Rolfe, Alex Moutsatsos, Christina Kindermann, Nick Briskell, Nyah McLauchlan, Benjamin Corchis, Ken Meldrum, Lesley Brooker, Kurt Wernowski, Olive Bromage, Therese Tachi, Miranda Dowling, Kaitlyn O'Mara, Serri Tanner-McAllister, David & Judith Robertson.

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