Find a Frog in February – 2020 Report

Prepared by the Mary River Catchment Coordinating Committee



BACKGROUND

2020 was the fourth year for the MRCCC's Find a Frog in February (FFF) citizen science program that collects frog records from the community during the month of February. It is delivered throughout the Mary

River catchment as well as the Noosa River, Burrum River and coastal catchments in between (see map). This area is administered by four local Councils; Sunshine Coast, Noosa, Gympie and Fraser Coast that all provide support. The program targets the whole community through displays, meetings, workshops, bushcare groups, school involvement and widespread media coverage.

SUMMARY OF THE 2020 FFF PROGRAM

The 2020 FFF program was an outstanding improvement on previous years. Involvement is growing as people become familiar with the program, its timing and the process of submitting records.

Despite the extreme and prolonged dry conditions during the latter half of 2019, the weather in January and February 2020 was particularly favourable with warm temperatures and widespread rain in the second half of January and throughout February. Frog breeding conditions were ideal for most species, increasing detectability due to high frog activity and abundant calling from males. Consequently, participation and the number of sites surveyed increased (78 Frog Finders and 87 survey sites in 2019, 206 Frog Finders and 141 survey sites in 2020), the number of records increased from 1368 in 2019 to 7946 in 2020 and the number of species detected also increased from 23 to 30.

Highlights and interesting observations 2020 (see report for further detail):

- Involvement of Bushcare groups and local schools in their first long-term monitoring surveys of wetlands nearby;
- Observations of threatened 'acid' frogs of the coastal wallum country;
- Explosion of emerging Litoria caerulea (Green treefrog) metamorphs along the Sunshine Coast coastal strip;
- 20+ vulnerable Adelotus brevis (Tusked frog) records at Mapleton State school;
- Many queries about juvenile Rhinella marina (Cane toad) look-alikes;
- At least 7 colour variations of *Litoria fallax* (Eastern sedgefrog) from Tallegalla
 Weir during one survey;
- Online interactive mapping developed and available on-line.



FFF proudly supported by our local Councils:











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WEATHER CONDITIONS

The table below shows that rainfall totals for February 2020 were particularly conducive for frog activity (much like 2018), making it easy for people to encounter frogs by call and visual sightings. It also meant that there were more frogs detected during a single encounter, which increased the total number submitted.

Rainfall during January 2020 was high, increasing even further into February. Rainfall totals exceeded all previous FFF years in Maryborough and Tewantin regions, while Gympie and Maleny totals were only slightly lower than those of February 2018. The good rain followed a prolonged dry period from July 2019 to January 2020.

Table 1. February 2020 rainfall totals (mm) (Bureau of Meteorology)

Location	2017	2018	2019	2020
Maryborough	5.6	137	32	345
Gympie	21	282	35	184
Tewantin	41	394	37	510
Maleny	60	413	122	396

FFF ACTIVITIES 2020

Addressing 2019 appraisal

The following components of the program were highlighted during FFF 2019 and addressed in planning and delivery of FFF 2020 by the MRCCC staff, external technical advisors, community members, groups, and government agencies:

- Investigate a dedicated data submission platform for FFF discussions have been underway with key people and some progress has been made. More work to be done in this area.
- Using the frog module that was designed specifically for teachers, work with four schools to monitor a
 wetland/waterway each year at or near the school Mapleton State School, Mimburi Outdoor Education Centre
 (Noosa District High School), Gympie East State School and Tinana State School and others are using the module.
- Hold a 'Frog Hop' evening of progressive frog surveys along Wide Bay Creek and tributaries completed with members of public participating.
- Target specific areas to increase participation:
 - Sunshine Coast Hinterland via Sunshine Coast council conservation Officers and the Land for Wildlife network – successfully carried out and more records came in from this area.
 - Targeted coastal catchment via linkage with Fraser coast Council staff and Poona Bushcare group –
 successfully initiated with initial survey of monitoring sites and bushcare/Council staff involvement.

Components that were highlighted in 2019 but not addressed during 2020:

• Organise a mini-Bioblitz in collaboration with Cooloola Coastcare (COVID-19 affected)

Media

Media items prepared and delivered were as follows:

- Media releases x 4 to ~1000 people and 220 entities.
- School notices for inclusion in newsletters and to inform teachers of available resources x 2.
- MRCCC Facebook posts x 37 (62,374 reached, 2,563 likes, comments and shares, 4,614 post clicks) including daily frog video with images and frog call to help with identification of local species.
- Find a Frog in February Facebook Group 374 members (Australia, New Zealand, Peru and USA). 185 posts with photos and discussion amongst frog enthusiasts and the MRCCC.
- Radio interviews x 2 (ABC Sunshine Coast, Zinc FM)
- TV news interviews Channel 7 Hervey Bay coverage of Tinana State School frog involvement
- Newspaper interview x 1 (Noosa News)
- Local newsletter/paper articles x 3 (Gympie Times, Gympie Living, Qld Frog Society FrogSheet)
- Queensland Museum Frog guides or Boomerang Bags (with Qld Frog Society logo) given to 52 new participants.
- Data verification, management and submission to the Queensland Government WildNet database
- Promotion of the Frog ID Key developed by Jono Hooper as a useful identification tool
- MRCCC website FFF page and updates

Activities

Displays, workshops, school presentations and group/school monitoring activities were delivered as follows:

Table 2. Workshop and presentations delivered and participant numbers

Local	Event	Participants
government		
area		
Sunshine Coast	Frog survey with Belli/Cedar Catchment Care Community on Belli creek	4 participants
Sunshine Coast	Presentation to Sunshine Coast Bushcare Group at Kirbys Road Reserve	50 attendees
Sunshine Coast	Workshop and surveys at obi Obi hall	30 participants
Sunshine Coast	Mapleton State School monitoring transect installation	1 teacher
Sunshine Coast	Mapleton State School monitoring survey	8 students, teacher
		and parents
Sunshine Coast	Mimburi Outdoor Education centre/Noosa District High School – monitoring	1 teacher
and Noosa	transect installation	
Sunshine Coast	Mimburi Outdoor Education centre/Noosa District High School (Pomona)	14 students and
and Noosa	workshop and monitoring transect survey	teachers
Noosa	Pomona State School – presentation	78 students and
		teachers
Noosa	Preliminary meeting with Peregian Beach Community Association to plan for	2 members
	workshop and survey (event postponed to November 2020 due to COVID)	
Noosa	Presentation to Cooroora Park Bushcare Group	20 attendees
Noosa	Frog workshop and survey at Noosa and District Landcare	65 participants
Gympie	Gympie East State School - Monitoring site visit and planning	2 Teacher Aids
Gympie	Gympie East frog talk to Environment Group	20 students, teachers
		and parents
Gympie	St Pat's Primary School assembly presentation	280 students and
		teachers
Gympie	'Frog Hop' – Wide Bay Creek catchment public surveys	5 community
		participants
Gympie	Stall at Gympie Landcare District Landcare Open Day	Approximately 20
		people spoken with
Gympie	Presentation at Gympie Landcare District Landcare Open Day	6 attendees
Gympie	MRCCC General Meeting – frog activity	35 attendees
Fraser Coast	Poona Bushcare Group and FCRC staff – site visit and assessment prelude to	1 staff and 1
	workshop and survey for monitoring (following workshop and surveys held by	Bushcare member
	FCRC staff)	
Fraser Coast	Public frog presentation – Hervey Bay Library	30 attendees
Fraser Coast	Public frog presentation – Maryborough Library	13 attendees
Fraser Coast	Tinana State School – monitoring transect installation	1 teacher
Fraser Coast	Tinana State School frog talk and monitoring transect survey	30 students, teachers
		and parents
Total	23 events	
	204 public event participants	
	435 school event participants (student, teachers and parents)	
	78 group activity participants	

PARTICIPATION OUTCOMES OF THE PROGRAM

The following table provides totals and a breakdown of involvement and records for each local government area:

Table 3. Numbers of participants and frog records with council area breakdown

	Total	Sunshine Coast Council	Noosa Shire Council	Gympie Regional Council	Fraser Coast Regional Council
Frog Finders	343	117	70	73	83
Number of workshop participants	283	84	85	41	73
Number of school group participants	427	8	89	300	30
Surveys *	221	31	41	75	74
Survey sites *	141	26	29	55	31
Frog records ~	7892	1369	909	1284	4330
Species	30	24	22	26	24
Threatened species #	5	3	4	5	2

^{*} Numbers of surveys and survey sites are from the FFF program only and do not include data from FrogID.

Numbers of school group participants continued to increase this year with 427 student attendees (up from 317 in 2019). However, numbers of workshop participants dropped to 283 (down from 411 in 2019) as fewer workshops were held while school interactions increased to initiate monitoring sites. A considerable increase in the number of people conducting frog surveys in 2020 was evident (343 Frog Finders in 2020 up from 77 in 2019), and the total number of records submitted (1,368 in 2019 and 7,946 in 2020). An unknown number of additional surveys and survey sites were conducted by people who submitted through the FrogID app.

SPECIES ACCOUNTS

In 2020, for the first time, a notable increase in the number of species observed was recorded, with 30 species spotted, up from previous years' counts of 22 and 23 species. Four new species were added to the cumulative species list in 2020, including *Litoria brevipalmata* (Green-thighed frog); *Uperoleia fusca* (Dusky gungan); the vulnerable *Litoria cooloolensis* (Cooloola sedgefrog), and the vulnerable *Litoria* olongburensis (Wallum sedgefrog). Table 4 provides the list of species and shows the cumulative increase in the number of species detected each year.

The following map shows the spread of surveys carried out by participants this year. It shows widespread involvement in frog surveys and improved participation in all Council areas. This is likely due to several factors including a broader awareness of the program building on three previous years, encouragement of participants to monitor previously surveyed sites, numerous workshops, public appearances and school activities, and favourable weather generating frog activity and encouraging participation. Activity gaps exist on Fraser Island and along coastal areas south of Hervey Bay to Peregian, sub-catchments to the west, Jimna area and the Blackall Range.

[#] Threatened species - Stream dependant species: Adelotus brevis Tusked frog, Litoria pearsoniana Cascade treefrog, Mixophyes iteratus Giant barred frog. Wallum species: Crinia tinnula Wallum froglet, Litoria cooloolensis Cooloola sedgefrog, Litoria olongburensis Wallum sedgefrog.

[~] An additional 54 frog records were received from outside the project area.

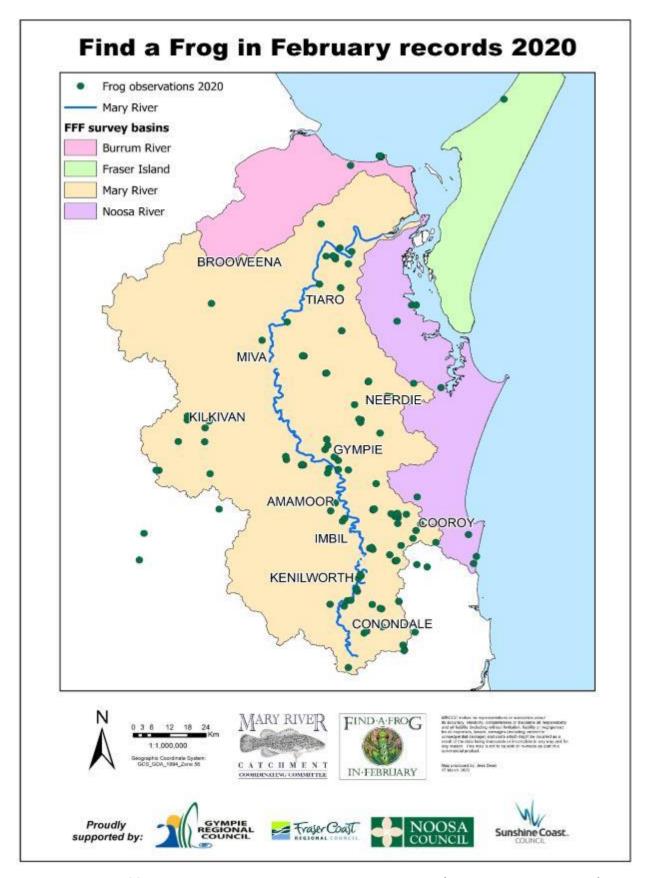


Figure 1. Locations of frog surveys by FFF Frog Finders during 2019-2020 (excluding FrogID records)

This year an on-line interactive map was developed by MRCCC staff that provides information at survey locations across the project area. It is available at the following link: https://mrccc.org.au/frog-in-february/ (see Figure 2 below).

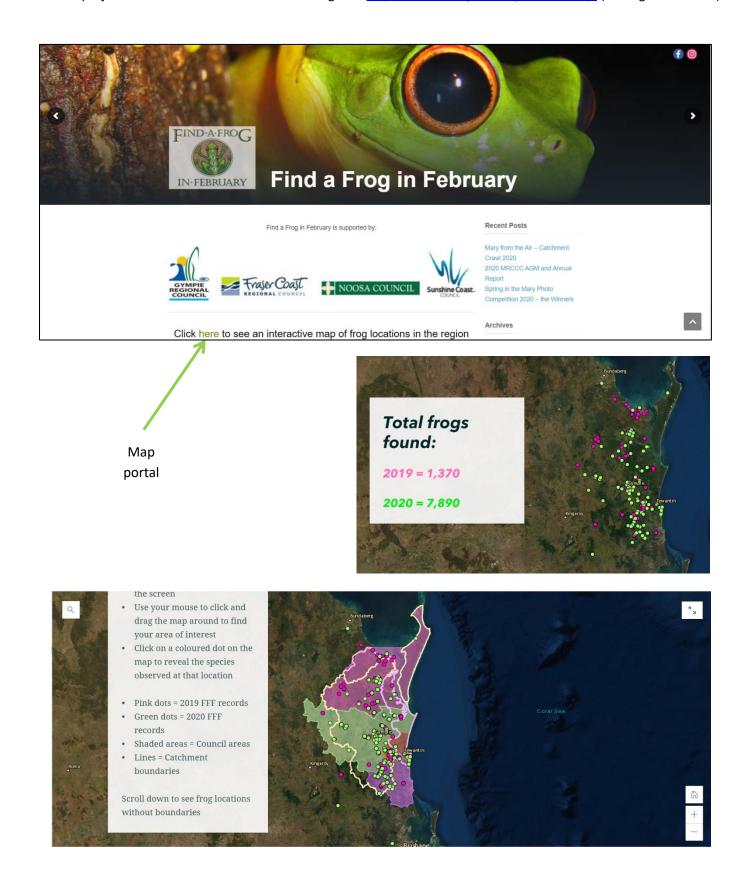


Figure 2. Website screenshots showing the interactive mapping tool

Table 4. Species recorded during Find a Frog in February – yearly comparison

		Threatened				
Scientific Name	Common Name	status	2017	2018	2019	2020
Adelotus brevis	Tusked frog	Vulnerable				
Crinia parinsignifera	Beeping froglet					
Crinia signifera	Clicking froglet					
Crinia tinnula	Wallum froglet	Vulnerable				
Limnodynastes peronii	Striped marshfrog					
Limnodynastes tasmaniensis	Spotted marshfrog					
Limnodynastes terraraeginae	Scarlet-sided pobblebonk					
Litoria brevipalmata	Green-thighed frog					
Litoria caerulea	Green treefrog					
Litoria chloris	Orange-eyed treefrog					
Litoria cooloolensis	Cooloola sedgefrog					
Litoria dentata	Bleating treefrog					
Litoria fallax	Eastern sedgefrog					
Litoria gracilenta	Graceful treefrog					
Litoria latopalmata	Broad-palmed rocketfrog					
Litoria nasuta	Striped rocketfrog					
Litoria olongburensis	Wallum sedgefrog	Vulnerable				
Litoria pearsoniana	Cascade treeftog	Vulnerable				
Litoria peronii	Emerald-spotted treefrog					
Litoria rothii	Northern laughing treefrog					
Litoria rubella	Naked treefrog					
Litoria tyleri	Southern laughing treefrog					
Litoria verreauxii	Verraux's treefrog					
Litoria wilcoxii	Stony-creek frog					
Mixophyes fasciolatus	Great barred frog					
Mixophyes iteratus	Giant barred frog	Endangered				
Platyplectrum ornatum	Ornate burrowing frog					
Pseudophryne raveni	Copper-backed broodfrog					
Uperoleia fusca	Dusky gungan					
Uperoleia laevigata	Eastern gungan					
Rhinella marina	Cane toad	(Exotic)				
	No of species		22	23	22	30
	Cumulative species count		22	26	27	30
	Total species		30			

Cells marked green indicate that species was recorded

Species composition at a survey site can provide interesting insights into the type of habitat. Several frog species are highly generalist in their habitat requirements whilst others have very specific needs. The graph in

Figure 3 shows that Litoria caerulea shows up at nearly 50% of sites whereas Crinia tinnula and Litoria olongburensis (wallum specialists) were only observed at a small number of sites (3 and 2 respectively). This is also a reflection of habitation tolerance and the likely sites people survey.

Occupation of sites by species 70 60 Numper of sites 40 30 20 10 Litoria chloris Litoria peronii Crinia parinsignifera Limmodynastes terraereginae Litoria caerula Litoria dentata Litoria fallax Litoria gracilenta Litoria nasuta Litoria olongburensis Litoria pearsonina Litoria rothii Litoria wilcoxii Aixophyes fasciolatus Adelotus brevis Crinia signifera Crinia tinnula Linmodynastes peronii Limmodynastes tasmaniensis Litoria brevipalmata Litoria latopalmata Litoria rubella Litoria tyleri Litoria verreauxii Mixophyes iteratus Platyplecturm ornatum Pseudophryne raveni Species

Figure 3. Number of sites where species were observed. Total number of sites = 141.

FUTURE PLANNING FOR 2021 FFF

Observations from the 2020 FFF program:

- Low participation from Fraser Island, coastal and western sub-catchments.
- Little known uptake of frog module by schools.
- 'Frog Hop' was not well attended by the public.
- · Record sheet requires changes to improve data processing.
- A dedicated FFF data submission platform would be useful for data management, program performance statistics and community contacts.

Considerations for 2021 FFF:

- Target low participation areas Fraser Island, coastal and western areas.
- Further emphasise habitat needs of species.
- Encourage community participants to monitor their site/s.
- Do 'Frog hop' (progressive frog surveys) in a western sub-catchment with targeted promotion to local communities, naturalist groups and schools.
- Support 2020 monitoring schools.
- Initiate monitoring in a further 1x school in each shire.
- Further investigate a data submission platform such as iNaturalist or tailored FFF phone application.
- Investigate a QuestaGame style phone application competition to encourage surveys.
- Continue workshops targeting low participation areas where possible.
- Obtain survey number and survey site numbers per council area from FrogID.

School monitoring – 'Mimburi' (Noosa District State High School









<u>School monitoring – Mapleton State School</u>





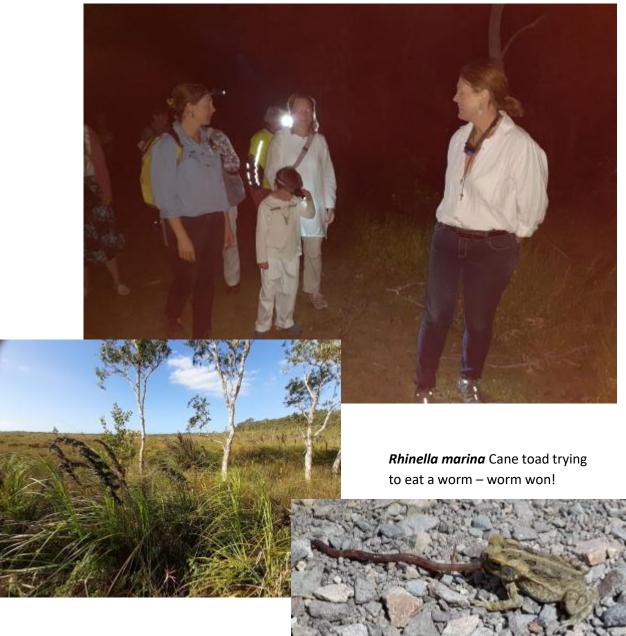


Bushcare group monitoring – Sunshine Coast





Litoria olongburensisWallum sedgefrog



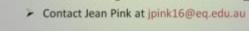
Bushcare group monitoring – Poona



Participant resources



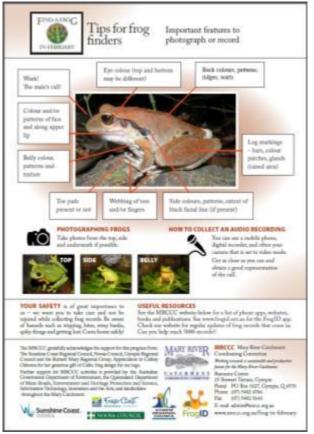




· Teachers - see frog module in EdStudio



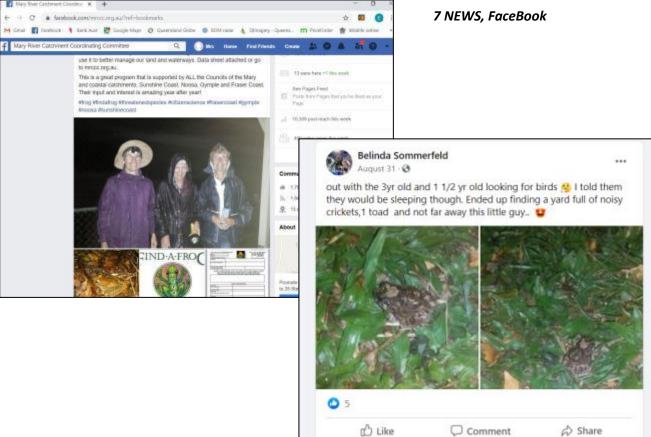




Media articles

https://www.facebook.com/7NEWSWideBay/videos/216632306187961/?vh=e&d=n









CITIZEN SCIENCE - Find a Frog in February

Find a Frog in February frog search activity gets underway soon. The Mary River Catchment Coordinating Committee (MRCCC) launched this



FIND A FRO What do we do with it? All information is entered into a large state database called WildNet where it can be stored safely and accessed by researchers, planners,

give people an opportunity to contribute to our collective knowledge of frogs and their whereabouts, so that we can better manage their habitat.

Frogs are highly sensitive to the condition of their surroundings; habitat features, water quality, chemicals in the air, humidity and temperature, and are recognised as good indicators of environmental health. One third of frogs worldwide are at risk of extinction due to factors such as habitat loss, disease. changes to water supply and the impacts of exotic species. In our local area we have lost two species; Gastric brood frog Rheobatrachus silus and the Southern day frog Taudactylus diumus, since the 1970's and six more have joined the 'threatened' list. One of these; the Giant barred frog Mixophyes iteratus has its stronghold in the Mary River catchment and we want to make sure that they, and all the other frog species, maintain healthy populations

Looking for frogs is an activity for the adventurous and concerned members of our community. It takes a little time out of the house in the evening with a headlamp or torch, and a phone or camera. A little more time to record what has been seen or heard and then send that through to the MRCCC.

program three Februarys ago in 2017 to decision-makers and naturalists, and be drawn on when assessing sites for development or other impacting activities.

> Over the past 3 years around 4100 records of 27 species have been submitted through the Find a Frog in February program from 286 locations. It's a fantastic contribution from the community of the Mary, Burrum, Noosa River systems and Coastal catchments from Peregian to Burrum Heads. Each year the Sunshine Coast Council, Noosa Shire Council, Gympie Regional Council and Fraser Coast Regional Council all pitch in to help the MRCCC to coordinate the program and process the incoming information. This is a great demonstration of consolidated commitment to protect our natural environment.

In 2020 there will be workshops, Frog Hops (progressive frog survey nights along creek systems) and setting up of long-term frog monitoring sites at schools and community environment

Jump into the pool of contributing froggers and find our amphibian friends this February!

See www.mrccc.org.au/frog-in-february/ for all the information you need or call the MRCCC on 07 5482 4766.

*press release by Eva Ford Catchment Officer, MRCCC

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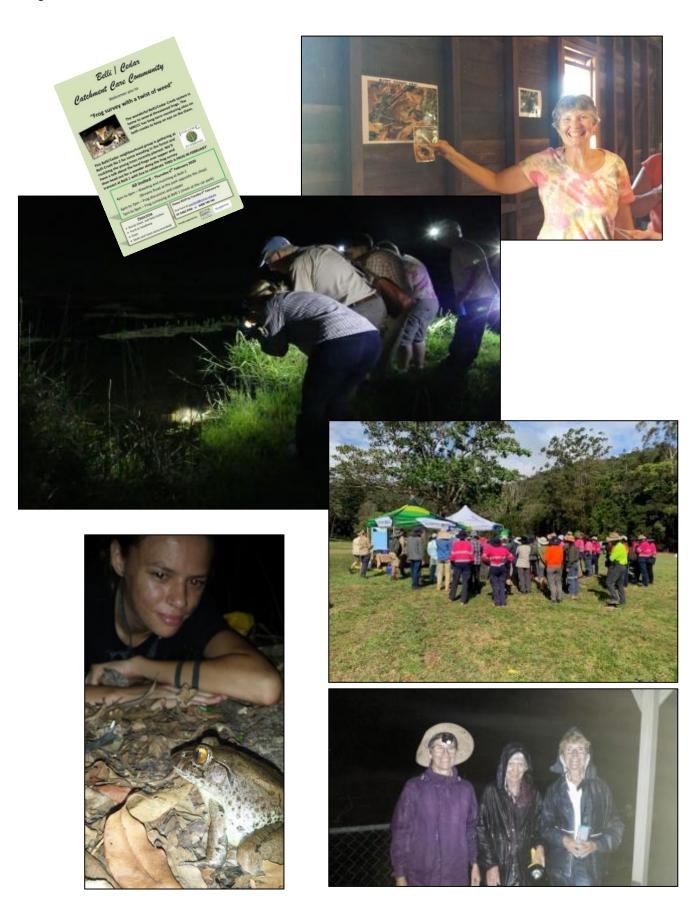
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the survey site to familiarise myself with the area and fi

Sunshine Coast – Obi Obi Hall Workshop and survey, Kirbys Road Reserve talk, Belli/Cedar Catchment Care Community outing



Noosa Shire – Noosa Landcare presentation and survey, Cooroora Park Bushcarer's Day Out



Audience creating a storm and becoming frog callers!

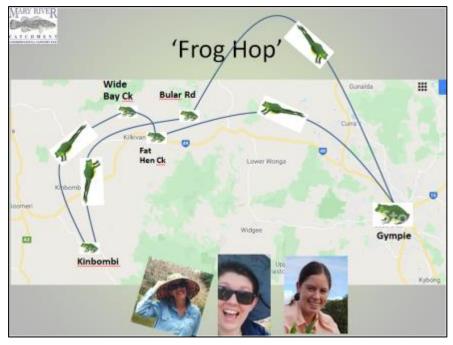
Gympie Shire – 'Frog Hop', Gympie Landcare Open Day stall and talk, MRCCC AGM











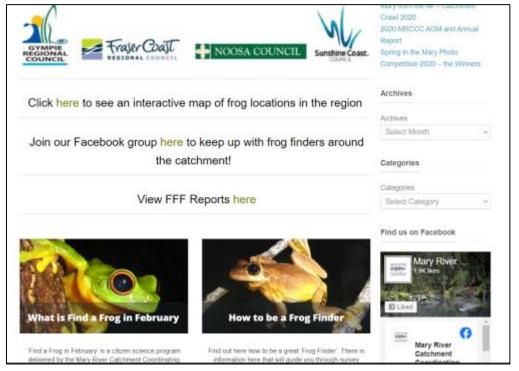


Fraser Coast – Library talks – Maryborough and Hervey Bay



Website screenshots

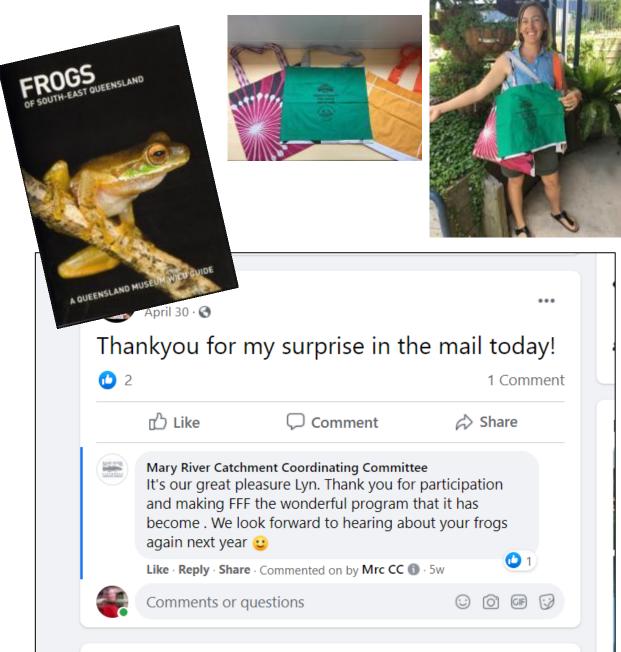




52 people received gifts for their first time participation in FFF



Money raised by the sale of Wildlife natural Solution's 'Wallum frogs Soap'n'Shampoo' buys gifts for 1st timers ©



Proudly supported by:









With immense gratitude from:

