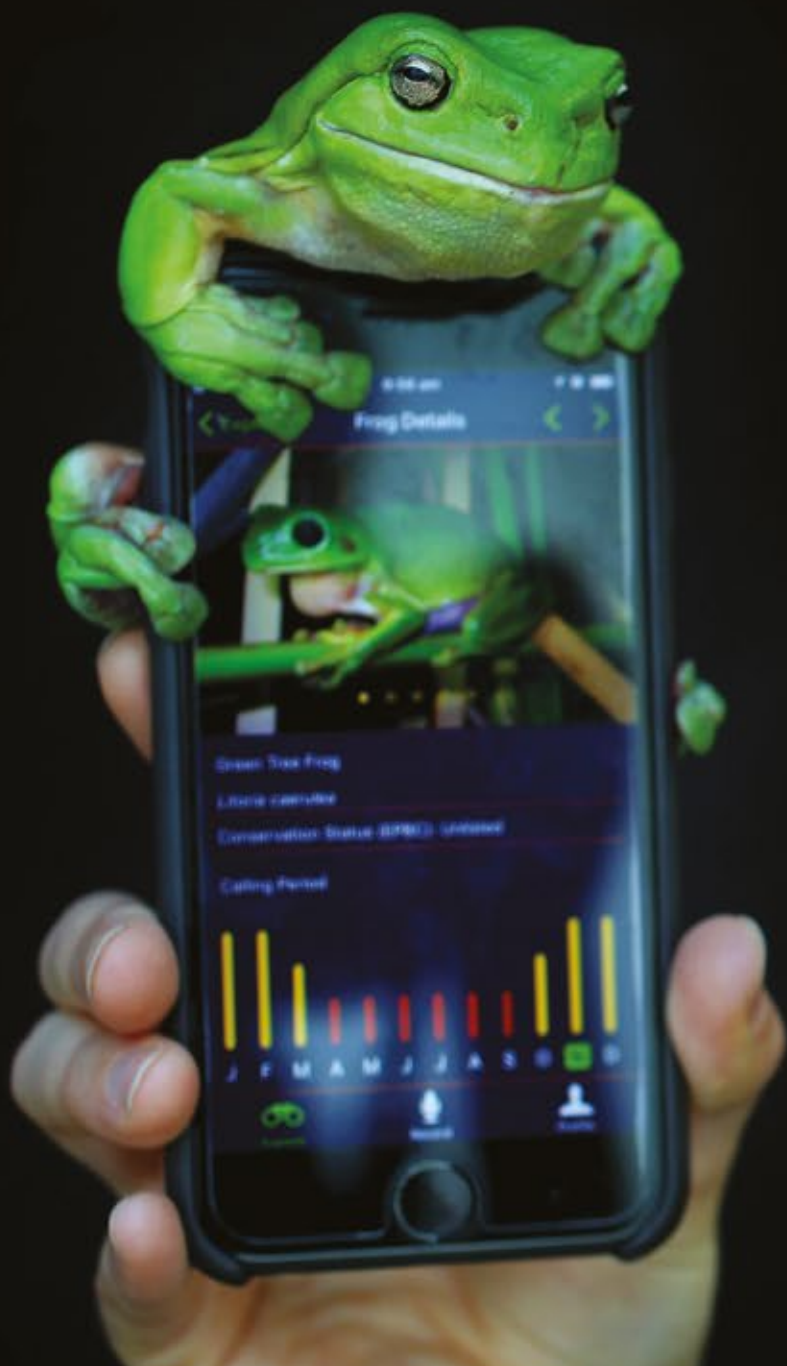


2017–21

FrogID report



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Davies' Tree Frog
Litoria daviesae

**Message from the
Director & CEO
Kim McKay AO**



FrogID is the only project of its kind in the world. It represents a seismic shift in the activity of natural history museums and the concepts of 'collecting' and public engagement. It is one of the ways the Australian Museum is using science, technology and collaboration to address climate change and protect Australia's natural and cultural heritage.

In 2015, we established the Australian Museum Centre for Citizen Science to shine a light on the important role the community plays in collecting scientific data. FrogID, launched in 2017, is a direct result of the creation of the Australian Museum Centre of Citizen Science.

Three and a half years and 380,000+ frog records into the project, it is easy to forget what an ambitious undertaking FrogID was, and still is. FrogID started as a spark of an idea in the mind of Dr Jodi Rowley. Jodi shared her idea with me, and I think she was surprised when I encouraged her to make it happen and we convened a project group at the Australian Museum. It was uncharted territory, but we are all delighted by the wonderful way FrogID has been embraced across Australia by the public and our partners. To quote a respondent to our FrogID user survey, "I think it's one of the most important programs in the country."

Before we launched FrogID, the total number of Australian frog biodiversity records was approximately 500,000. Our goal is to double that number. You only need 20 seconds and a smart phone to make your mark on science and contribute to frog conservation. Please help Australia reach the one million frog records milestone - every recording counts.

**Message from the
Lead Scientist
Dr Jodi Rowley**



Watching the FrogID website map fill with dots has been one of the most exciting parts of the project's first three and a half years. Each dot represents a citizen scientist at work and at least one frog species. Frog call recordings tell us about the environmental health of a precise location, at an exact time and date. Our first three and a half years of FrogID data tell stories of loss and resilience. In some areas, the silence is deafening, but in others there is unexpected, good news.

After the 2019/2020 Black Summer bushfires, we listened to frogs for information about the impact on ecosystems. Many people used FrogID to monitor frog activity post-fires. This data provided valuable and reassuring signs of environmental recovery.

FrogID is a fun and easy way for people to participate in science. Anyone can add their 'dot' to the map using their smartphone and the free FrogID app. Understanding environmental health has never been more important. Contributing to this understanding has never been easier.

Frogs in trouble

Scientists in every country in the world agree – frogs are in big trouble. More than 40% of the world's amphibian species are threatened or extinct.

Some have compared their decline to the mass extinction of dinosaurs 65 million years ago. Crashing global frog numbers is evidence of threats that affect all life on Earth, an early indicator of serious environmental decline.

Australia has more than 240 known frog species and more than 20% are officially classed as threatened. Some scientists think that percentage would be higher if we had more information. At least four Australian frog species are considered officially extinct, others are missing and feared extinct. We don't know enough about frogs to know for sure what is really going on.

Frogs are the ninjas of gardens and bushland. Anyone who has ever looked for a frog knows how tricky it can be to spot them, even when they seem to be really close by. More data is needed to understand frog distribution, breeding habitats and population trends. This knowledge is key to frog conservation in Australia.

Just like the canary in the coal mine, a lot can be learned by listening to what frogs have to say for themselves. FrogID relies on 'acoustic monitoring' – listening in on frog song and conversations. FrogID is the biggest sound-based citizen science project in Australia's history. Over 380,000 frog records have been verified since the project launched in 2017, and this is just the beginning.

Frog song is music to frog scientists' ears because it is a sign of breeding. Frog songs are unique to each species and are mostly made by males looking for mates. Almost all croaks, whistles, bleats and barks can be described as love song dedications from male to female frogs.

The FrogID app stamps every recording with a date, time and location and a team of FrogID Validators verify the recording to establish the species of frog/s present. FrogID is an ongoing national frog census, a simple and effective antidote to data deficiency.

Threats to Australian frogs



Green Tree Frog
Litoria caerulea



A data goldmine

Doubling the frog call library

Before we launched FrogID, the total number of scientific records of frogs in Australia was approximately 500,000. Our goal is to double that number. You only need 20 seconds and a smartphone to make your mark on science and contribute to frog conservation. Help us reach the one million frog records milestone. Every recording counts.

240,100+

Audio submissions



388,000+

Frog records



204

Species found



“

When FrogID launched, some scientists were skeptical about how a phone app could be used to collect reliable data. They are now asking how they can use the same method for other groups of animals.

Dr Jodi Rowley

”



How healthy is the environment?



Where they are breeding?



What species are calling?



What the data reveals

How are they doing?



How many different species are there?



When and how often are they breeding?



FrogID data is already making a difference:

- Nine scientific research publications
- Evidence-based decisions about frog management
- Better informed species conservation status and plans
- Answers to long standing questions about frog population ecology
- Revealing the secret lives of frogs
- Supporting the war against Cane Toads
- Measuring the impacts of climate change, disease, habitat loss and bushfire

Green and Golden Bell Frog
Litoria aurea

People power: a team of 22,000 +

Citizen Science, or public participation in science, is the secret to FrogID's success. More than 22,800 people have contributed to FrogID and many more will in the future. Frog researchers, frog call validators, schools, community groups, families, one-time users, froggers and corporate partners are working together to make a better future for frogs.



Researchers

Dr Jodi Rowley has always known that big data could help save Australia's frogs. How can the right conservation decisions be made without knowing about the current status of every frog species? Frog research is notoriously challenging because frogs are often nocturnal, shy and well camouflaged. Some species only emerge every few years when a perfect storm creates the right breeding conditions. Australia is enormous – over 7,000,000km². Most Australian land is off limits for scientific exploration because it is privately owned and/or remote.

"When I read the feedback from our recent participant survey, people's comments made me tear up. I was initially excited about the data because I'm a scientist, but this project has done more for raising the awareness of frogs in Australia than anything else. Families, farmers, schools, community groups and even other scientists are using FrogID regularly and becoming aware of frogs for the first time," Dr Rowley said.

“

FrogID has created more biodiversity data than we've ever had on frogs. Even more important is what that data tells us about environmental health since frogs are so sensitive to environmental change.

Dr Jodi Rowley ”



Researchers

Brittany Mitchell, a PhD student at the Australian Museum and University of New South Wales, is one of several Australian Museum students supervised by Dr Rowley who is using the FrogID dataset to advance our scientific understanding of Australia's frogs, particularly in noisy urban environments where frog communication is known to be impacted by human activity.

"Previous studies on how frogs adapt to urban environments have been small in scale (both geographically and with number of individuals) and have only focused on specific components of urban environments, such as noise, or light pollution. However, the national FrogID dataset allows us to examine these impacts holistically on a continental scale for the very first time, placing us in a better position to understand and conserve Australia's frog species across the whole country," Mitchell said.

FrogID data is increasingly being used by researchers outside of the Australian Museum for advancing conservation biology knowledge areas. At Deakin University, a project led by Professor Don Driscoll with Dr Martino Malerba is combining FrogID data with remotely-sensed data to explore how agricultural landscapes influence frogs.

"By combining Dr Martino's new large-scale dataset on farm dams with FrogID records, we are investigating how farm dams and their surrounding habitat types influence frog colonisation rates. This knowledge can help us understand what landscape elements limit frog movement across the landscape and how we can better manage agricultural land to help curb biodiversity loss," Professor Driscoll said.

FrogID is an outstanding citizen science project as evidenced by its impact and success across citizen science's three major pillars – science, education and engagement. Scientifically, FrogID's data quality is exceptional with a phenomenal publication record and significant uptake across policy and planning domains. FrogID is having formal and informal educational impact and it engages a large number of individuals and communities across a broad geographic and age range in helping protect our nation's frogs.

Southern Corroboree Frog
Pseudophryne corroboree



Research publications

Between November 2017 and June 2021, the FrogID team published nine scientific research papers:

1. Rowley, J.J.L., et al (2019). FrogID: Citizen scientists provide validated biodiversity data on frogs of Australia. *Herpetological Conservation and Biology*, 14 (1): 155-170

The first scientific publication produced by the FrogID team introduced FrogID, its methodologies, preliminary findings, and highlighted potential future uses of this incredible citizen science dataset on frogs of Australia.

2. Rowley, J.J.L., Callaghan, C.T. (2020) The FrogID dataset: expert-validated occurrence records of Australia's frogs collected by citizen scientists. *ZooKeys*, 912, 139-151

The second publication by the FrogID team released the first year of expert-validated FrogID data (November 2017 to November 2018). This dataset represented an impressive 54,864 records of 172 frog species, which accounted for 71% of the frog species known in Australia at the time. Now, the FrogID dataset is re-released on an annual basis following rigorous data cleaning and checking procedures by members of the Australian Museum FrogID team.

3. Mitchell, B.A., Callaghan, C.T., Rowley, J.J.L. (2020). Continental-scale citizen science data reveal no changes in acoustic responses of a widespread tree frog to an urbanisation gradient. *Journal of Urban Ecology*, 6 (1), juaa002

The third publication by the FrogID team was led by student, Brittany Mitchell, focusing on the advertisement calls of the Red Tree Frog (*Litoria rubella*). The study provided the first evidence that Red Tree Frogs have highly variable calls which may help them tolerate living in loud, urban environments, and illustrated how FrogID data could be used to better understand how frogs behave in urbanised areas and how we might better conserve them.

4. Callaghan, C.T., Roberts, J.D., Poore, A.G.B., Alford, R.A., Cogger, H., Rowley, J.J.L. (2020). Citizen science data accurately predicts expert-derived species richness at a continental scale when sampling thresholds are met. *Biodiversity and Conservation*, 29, 1323-1337

The fourth publication by the FrogID team compared FrogID data with our current maps of species diversity, compiled by experts, and importantly demonstrated that citizen science data performed just as well as expert-derived data. It also demonstrated FrogID as a powerful and rapid scientific tool that government and professional scientists could utilise in biodiversity conservation efforts.

5. Rowley, J.J.L., Callaghan, C.T., Cornwell, W.K. (2020) Widespread short-term persistence of frog species after the 2019-2020 bushfires in eastern Australia revealed by citizen science. *Conservation Science and Practice*, 2 (11), November 2020 e287

The fifth publication produced by the FrogID team revealed rare, good news following the devastating Black Summer bushfires of 2019-2020. FrogID records collected by thousands of citizen scientists provided rapid understanding of how Australian frogs were

recovering, with 45 frog species, including rare and threatened species, recorded in the immediate aftermath of the fires. FrogID records now and into the future will be vital to understanding how frogs are persisting.

6. Weaver, S.J., C.T. Callaghan, J. J. L. Rowley (2020) Anuran accents: Continental-scale citizen science data reveal spatial and temporal patterns of call variability. *Ecology and Evolution*, 10 (21), 12115-12128

The sixth publication produced by the FrogID team was led by student, Savanna Weaver, investigating frog accents. Thanks to the large-scale citizen science records collected by FrogID participants, this study found that Australian frogs indeed have accents and their accents change across the country, and even over time. These findings have implications for researchers using frog calls to distinguish species from one another, with the authors suggesting that the calls of at least 20 individual frogs, distributed across the range and breeding season of each frog species be analysed for accurate assessments to be reached.

7. Callaghan, C.T. & Rowley, J.J.L. (2020). A continental assessment of diurnality in frog calling behaviour. *Austral Ecology*, 46, 65-71

The seventh publication produced by the FrogID team delved into the acoustics and evolutionary relationships of frogs calls and quantified how many species restricted their calling to night or day. Out of the 196 Australian frog species that were studied, 71% were recorded at least once during the day, with implications for the timing of frog surveys.

8. Liu, G., Rowley, J. J. L., Kingsford, R. T., & Callaghan, C. T. (2021) Species' traits drive amphibian tolerance to anthropogenic habitat modification. *Global Change Biology*, 27 (13), 3120-3132

The eighth publication produced by the FrogID team was led by PhD student, Gracie Liu and examined which Australian frogs are best equipped to survive the human world. Out of the 87 species that had a large enough number of FrogID records, an overwhelming 70% of species were found intolerant of human modified habitats. The publication suggested greenspaces and 'frog-friendly' gardens could help support the frogs that we share our cities and altered landscapes with.

9. Callaghan, C.T., Liu, G., Mitchell, B., Poore, A.G.B., Rowley, J.J.L. (2021) Urbanization negatively impacts frog diversity at continental, regional, and local scales. *Basic and Applied Ecology*, 54, 64-74

The ninth scientific publication produced by the FrogID team further investigated the impact of urbanisation. This study found that the overall species richness of frogs was, on average, 57% less in urban than non-urban areas across six different ecoregions. The authors also found a steady decrease in frog diversity along an urbanisation gradient, with the number of frog species in urban areas across Australia less 59% lower than the number of species found in adjacent natural areas. The study adds further support for higher consideration of frog diversity in future urban land development decisions.



Jordann Crawford-Ash
FrogID Validator at the AM

Validators



When Jordann Crawford-Ash started her science degree eight years ago, she could never have imagined it would lead to a dream job analysing frog call recordings from across Australia. FrogID Validators listen to every call submitted through the app and assign a species, or multiple species, to the record.

Expert human validation sets FrogID apart from most other citizen science projects and acts as quality control for the project's most precious asset - data. Jordann has mastered more than 100 frog 'languages' during her time as a FrogID Validator, a skill that has opened her ears and her mind to a whole new way of doing science.

While Jordann knew that many people love frogs, the amount of data collected since FrogID launched in 2017 is "unheard of" and could never have been achieved using traditional science alone.



“

By expanding our team to include citizen scientists, we are gathering data from every corner of Australia, an impossibility for our small lab group. Community contributions are the force behind FrogID, this project has transformed the way we approach frog conservation. It is something I am so proud to be part of.

Jordann Crawford-Ash ”



Community groups

When Nicki Hirst and her dog Amity go on their regular 5:30am walk in the Woolshed Creek (Albury, NSW) area, they have important work to do. Nicki is checking in on a tiny and threatened frog called the Sloane's Froglet (*Crinia sloanei*).

Nicki is part of the Woolshed Thurgoona Landcare Group and their offshoot "Sloane's Champions" group. The Sloane's Champions were the first to record the short peeping call of a Sloane's Froglet for FrogID. It was the 159th species detected in Australia using the app and a significant discovery due to their small size and limited range. Sloane's Froglets are only found around the Murray River and are the size of a ten cent coin.

"Most of us had never heard of the Sloane's Froglet before getting involved with Landcare and the Champions. Now, even on the coldest Albury mornings I run into other locals listening out for Sloane's Froglets at the wetlands. We all feel responsible for its survival," Nicki said.

The community support and contributions to FrogID data have already made a difference to the lives of these little brown frogs. The local council has made frog habitat a compulsory element of all new developments, maintaining a wetland corridor through the area.

The Sloane's Champions have submitted over 3000 recordings to FrogID, over 1200 of those by Nicki herself. Hundreds of other community groups around Australia are also using FrogID as a monitoring and reporting tool for their local wetlands and frog populations.

Sloane's Froglet
Crinia sloanei



Mildura

West Wyalong

Aubury



SLOANE'S CHAMPIONS



Dedicated individuals



Nothing can stop David Dyke from recording frog calls in Perth's Malgamongup (Bardon Park) wetlands, not even a blaring U2 concert or a dog bite that led to a trip to the Emergency Department. David has single-handedly submitted over 8000 recordings to FrogID and is showing no signs of slowing down.

"I am totally dedicated to these funny little creatures, and a bit competitive. I go out a few nights each week to record calls for FrogID. I was more upset when Bono sang over the top of my recordings than the time I spooked a local dog and ended up with a pretty bad bite," Dyke said.

Dyke said that listening to frogs has helped him recover from some difficulties in his personal life and a major health scare. He created a local bush regeneration group and observed an increase in frog calls as the habitat improved. Getting to know frogs has changed David's world view and reconnected him with nature and local First Nations cultures.

Partners

IBM

FrogID is the most recent product of the 30-year creative partnership between IBM and the Australian Museum. The IBM team developed the app over 18 months, in collaboration with AM science, digital and education staff. After-dark frog fieldwork was the setting for final testing of the FrogID app, attended by both IBM and Australian Museum staff.

Bunnings

More than 200 'frog-friendly' ponds have been built in schools around Australia as a result of a partnership between the Australian Museum and Bunnings. The National Frog Pond Building Project continues to involve thousands of students in frog research and make schools a welcoming place for frogs. The FrogID team also ran community workshops at Bunnings stores during the three-year partnership.

Fyna Foods

A chocolate Green Tree Frog has become the unofficial mascot of FrogID as a result of a partnership with confectionery manufacturing and production company, Fyna Foods. This is one of three animal conservation projects that Fyna support. The chocolate frog is part of their Bush Friends range and has been used at many FrogID events.


John T Reid Charitable Trusts

Since partnering with FrogID, John T Reid Charitable Trusts has helped engage First Nations rangers on country to record frogs; supported FrogID week, the cornerstone event for outreach and engagement; provided funding for the FrogID team to showcase the project at national and international virtual conferences; and supported field trip travel for the FrogID team to talk to a broad range of audiences.

Inspiring Australia – Science Engagement Programme

FrogID was supported by the Australian Government as part of the Inspiring Australia – Science Engagement Programme. The Grant supported the Australian Museum to establish FrogID as an innovative national citizen science initiative that engages Australians in science by collecting "audio DNA" of frog calls across the nation. The Grant also supported the development of school education programs across the Australian Museum.





Kimberley Spadefoot
Notaden weigeli

Top frogs

The FrogID team can't help but play favourites when verifying frog recordings submitted through the app. Hearing a rare or elusive species can cause a flurry of excitement at FrogID headquarters. Frog scientists all have a frog that is special to them, sometimes because of research they have done on that species, sometimes because of how cute or weird it is. So, what are some of the recent highlights?

Whoop there it is



20.0s



The *Notaden* frog genus is a group of burrowing frogs from central and northern Australia. They are universally loved for their rotund bodies, grumpy faces and distinctive 'whooping' call after heavy rain events.

One *Notaden*, the Kimberley Spadefoot, *Notaden weigeli*, has only been recorded twice in total, by one lucky FrogID user.

Rare and precious

When the FrogID Validator team first heard what sounded like a 'whoopee cushion' in a submitted recording, they were overjoyed. The endangered, burnt orange-coloured Mountain Frog's (*Philoria kundagungan*) range is limited to a few mountains on either side of the New South Wales/Queensland border. The Mountain Frog's comical call has been identified in 31 FrogID recordings so far.

Similar celebrations take place when a Validator hears the creepy 'creaking door in an empty house' call of a Davies' Tree Frog (*Litoria daviesae*). It is found only in Northern New South Wales and has been recorded 46 times since FrogID launched.

Western Australia's Turtle Frog (*Myobatrachus gouldii*) looks like a turtle without a shell. It's a burrowing frog with muscular front arms and claws and a tiny head. Few people have ever seen a Turtle Frog calling and only 27 records of its deep croak have been submitted to FrogID. Nobody has ever seen a Turtle Frog tadpole because they don't exist. They hatch from an egg looking just like an adult, only much smaller.



Mountain Frog
Philoria kundagungan



Davies' Tree Frog
Litoria daviesae



Turtle Frog
Myobatrachus gouldii

The stories behind the stats

FrogID data is full of fascinating stories and a few mysteries. Scientists will follow up many of the mysteries with fieldwork and further research.



Tasmanian Tree Frog
Litoria burrowsae

Black Summer bushfires



FrogID data has provided a rare, good news story following the 2019/20 Black Summer bushfires. Citizen scientists responded to the call for information and recorded more than 50 frog species in burnt areas in the first few months after the summer fires. FrogID is designed for fast collection of spatially accurate data, making it an ideal tool for measuring fire recovery. Ongoing use of FrogID is critical for revealing the long-term persistence of frogs following the 2019/20 Black Summer bushfires – watch this space for more updates.

When no noise is bad news

The Australian Green Tree Frog (*Litoria caerulea*) was once widely distributed throughout the Sydney area. FrogID provides the first evidence that the Green Tree Frog has all but disappeared from Sydney. Elsewhere, even in urban areas, Green Tree Frogs are heard loud and clear. Green Tree Frogs are the eighth most common species identified from FrogID recordings, with almost 12,000 records submitted. Given how loud and distinctive their call is, their absence from most of Sydney is likely to reflect local extinction in much of the Greater Sydney area.

Rediscovering endangered frogs

The Tusked Frog (*Adelotus brevis*) is named for the two tusk-like teeth protruding from its lower jaw in males. Distributed along the east coast of Australia, from the central coast of Queensland, to just north of Sydney, the species was once widespread throughout the vast New England Tablelands and the Nandewar regions (North West Slopes) of NSW. However, the species appeared to vanish from the region sometime after the 1970s. As a result of these declines, the Tusked Frog on the New England Tablelands and Nandewar regions was deemed “in immediate danger of extinction” and formally named an endangered population in 2001. The last records of the endangered population of the Tusked Frog were in the late 1990s and mid-2000s. Surveys across the former range of the endangered population failed to detect the species, and scientists were fearing the worst.

However, in early 2021, the distinctive ‘chirrup’ call of the species was again heard west of Tenterfield, and recorded with the Australian Museum’s FrogID app. This is an area where the species hadn’t been reported for over 40 years, and for now, this site represents the only known location of this endangered population of Tusked Frogs.

Tusked Frog
Adelotus brevis



Red-eyed Tree Frog
Litoria chloris



Hitching a ride

FrogID has revealed that many of Australia's tree frogs are successfully hitchhiking across the country.

Some of the most mobile species appear to be the Red-eyed Tree Frog (*Litoria chloris*), Graceful Tree Frog (*Litoria gracilentata*), Red Tree Frog (*Litoria rubella*) and the Eastern Dwarf Treefrog (*Litoria fallax*), managing to travel up to 400km from their usual homes to set up new ones, most likely as stowaways on transported fruit or plants.

While travelling frogs might seem fairly harmless, scientists are interested in whether they could carry diseases to new areas or disrupt existing ecology.



Eastern Dwarf Tree Frog
Litoria fallax

Tracking toads

FrogID is successfully detecting invasive species, having already received over 3400 submissions of the introduced Cane Toad from across its range, including the invasion fronts in Western Australia and NSW. This information is shared with biosecurity agencies and groups researching Cane Toad populations across Australia, helping us understand the current distribution and impact of Cane Toads. FrogID is also an early warning system for any Cane Toads accidentally transported far outside their native range, or for any introductions of other exotic frog species that may have significant impacts on Australia's environment and economy.

Cane Toad
Rhinella marina



Surviving human-modified landscapes

As urbanisation of our natural landscape expands, frogs are at increased risk of losing their homes. Gracie Liu, a PhD Candidate at the Australian Museum and University of New South Wales was determined to find out which frog species could withstand the pressures of human modified landscapes. Gracie found frog species that were habitat specialists and laid their eggs on land were amongst the most intolerant of urbanisation, while generalist frog species and those that called from vegetation tended to be the most tolerant.

“

My research using FrogID data has shown that an overwhelming 70% of Australia's frog species are intolerant of human modified environments. It is important that we identify which frog species are likely to be tolerant or intolerant of habitat modification, so that we can direct our conservation efforts towards the species that are most in need of our help.

Gracie Liu

”

Northern Heath Frog
Litoria littlejohni

FrogID data has also revealed that along an urbanisation gradient spanning natural environments to more densely urbanised areas, frog species diversity steadily declined, with the number of frog species in cities across Australia less than half (59 per cent lower) the number of species found in nearby natural areas.

Thanks to thousands of citizen scientists distributed across the country using FrogID, acquiring the information needed for national-scale assessments of Australia's frogs is now made easier, and helps place frogs – one of the most threatened groups of animals in the world – at the forefront of land-use planning and conservation decisions.



Media and recognition

Since FrogID launched in November 2017, approximately 12,140 articles and interviews were generated across print and broadcast, online, resulting in an audience reach of approximately 165,858,675.



Don't cane a toad in case it's Aussie frog

[illegible]

Government recognition

FrogID data is being used in determining the Federal and state conservation status of Australia's frogs, particularly following the 2019/2020 Black Summer fires. The Federal Government recommends FrogID for monitoring threatened frog species, and the NSW Government also recommends FrogID in its "NSW Survey Guide for Threatened Frogs: A guide for the survey of threatened frogs and their habitats for the Biodiversity Assessment Method."

“

It is a privilege to put on my headphones in my Sydney office and hear frog songs from places I have never been to.

Dr Jodi Rowley ”



Awards

Eureka Prize for Innovation in Citizen Science (2019)

NSW Government Green Globe Natural Environment (2018)

Digital – EdTech prize, Sydney Design Awards (2019)

Some of the members of the FrogID team: Paul Flemons, Adam Woods, Dr Jodi Rowley, Christopher Portway, Megan Lawrence. Winners Department of Industry, Innovation and Science Eureka Prize for Innovation in Citizen Science. 2019 Australian Museum Eureka Prizes.

FrogID Week 2020



FrogID Week is an annual assessment of frogs calling across the nation and serves as an ongoing study into Australia's frogs, helping monitor and identify any changes to them and our environment.

FrogID Week 2020 was the biggest event yet, with record numbers of people submitting recordings through the FrogID app. Over 10,000 audio submissions were received, resulting in over 20,000 frog records across 103 of Australia's known 243 frog species. This was a stark increase from the previous drought year of 2019, when 3,673 submissions were received, resulting in 5,501 frog records.

Approximately 10 percent of FrogID Week 2020 records came from areas impacted by the 2019/20 Black Summer fires, building upon important data that increases our understanding of the impact of bushfires and drought on frogs and the recovery of our environment.



10,500+
recordings submitted



2069
users who submitted a
call with the FrogID app



20,200+
frogs verified



103
species found

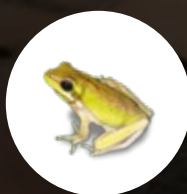
Top 5 frogs recorded Australia wide



Peron's Tree Frog
(*Litoria peronii*)



Common Eastern
Froglet
(*Crinia signifera*)



Eastern Dwarf Tree Frog
(*Litoria fallax*)



Striped Marsh Frog
(*Limnodynastes peronii*)



Spotted Marsh Frog
(*Limnodynastes tasmaniensis*)

FrogID ambitions

Climate change presents an enormous challenge to the survival of flora and fauna globally and frog extinctions are more complex than any one cause can explain.

Support of frog conservation and scientific research is more important than ever and is critical to our collective future.

We need your support to continue the important work already achieved in the past years. In the coming years, we will expand our understanding of frog distributions over time and strengthen our understanding of how frogs and their ecosystems are responding to a changing planet.

By supporting FrogID you are:

- Directly supporting scientific research focusing on understanding and conserving Australia's frogs, many of which are threatened.
- Increasing scientific literacy in the community and connecting people to their local biodiversity.
- Supporting FrogID Week – an annual event that is amongst the most rapid data collection on frogs anywhere in the world.

You can financially support FrogID in two ways

1. Corporate Partnerships – align your brand with the Australian Museum and FrogID. Partnerships with the AM offer a substantial return on investment, and we recognise that all partnerships are unique, so we offer a dynamic, flexible and creative platform.
2. Donating – By donating to FrogID you are helping us to continue this important research and expanding our reach across Australia. All donations over \$2 are tax deductible.

By supporting FrogID, you will make a vital contribution to the knowledge-base of Australia, ensuring that future generations can be inspired and learn from scientific knowledge and cultural practices that could change their lives.

To find out more about supporting FrogID, visit: frogid.net.au/partners

**By 2027,
FrogID hopes
to achieve the
following:**



Green Tree Frog
Litoria caerulea

No. of submissions	650,000
No. of frog records	1,000,000
No. of registered FrogID accounts that have submitted audio	50,000
Percentage of Australian map grid cells with FrogID records	50%
Minimum number of records of frogs per day in Brisbane, Perth & Melbourne	20
Minimum number of records of frogs per day in Sydney	50
No. of species recorded	All known Australian frog species (~243)
No. of total scientific publications submitted	20
No. of outreach events in remote communities	30
Number of state or federal government guidelines, reports or plans incorporated	30

Acknowledgements

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Through the power of citizen science we are revolutionising scientific research and our capacity to respond to the biggest threats facing biodiversity. If we are to tackle these threats head on, we need the community to be involved.

Professor Kristofer Helgen,
Chief Scientist and Director
of the Australian Museum
Research Institute

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Graceful Tree Frog
Litoria gracilentia



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The Australian Museum acknowledges and pays respect to the Gadigal people as the First Peoples and Custodians of the land and waterways on which the Australian Museum stands.

Contact

Australian Museum
1 William Street Sydney NSW 2010
Open daily 10am – 5pm
Closed Christmas day

T 02 9320 6000
F 02 9320 6050
E calls@frogid.net.au
W australian.museum



Australian Lace-lid
Litoria dayi



FrogIDAus

frogid.net.au

