

UNSW AI Symposium 2024

FrogID: people power to the rescue in frog conservation

Nov 2024

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Australian Museum & UNSW Sydney



FrogID



AUSTRALIAN MUSEUM

Australia's Frogs





6:50

3G

Record



49.49

Profile



FrogID

Capture #14799

Jodi Rowley's recording / jodi.rowley@austmus.gov.au

Close

Published ▾



Listen to Jodi Rowley's recording



Download

Location



Lat: -29.8535 / Lng: 152.0581 / Accuracy: 6

[Open in Google Maps](#)

Images taken during recording

No images recorded

Filters submitted during recording

Habitat: **Natural area**

Water Body: **Stream or creek**

Notes submitted during recording

No notes recorded

Listen to matching frog calls and select your answer. If you have identified frog(s), tick the species you think is recorded in the call. Call may contain multiple species

One or more of these frogs:

Gussed

Filtered

Remaining



Pseudophryne coriacea

Red-backed Toadlet



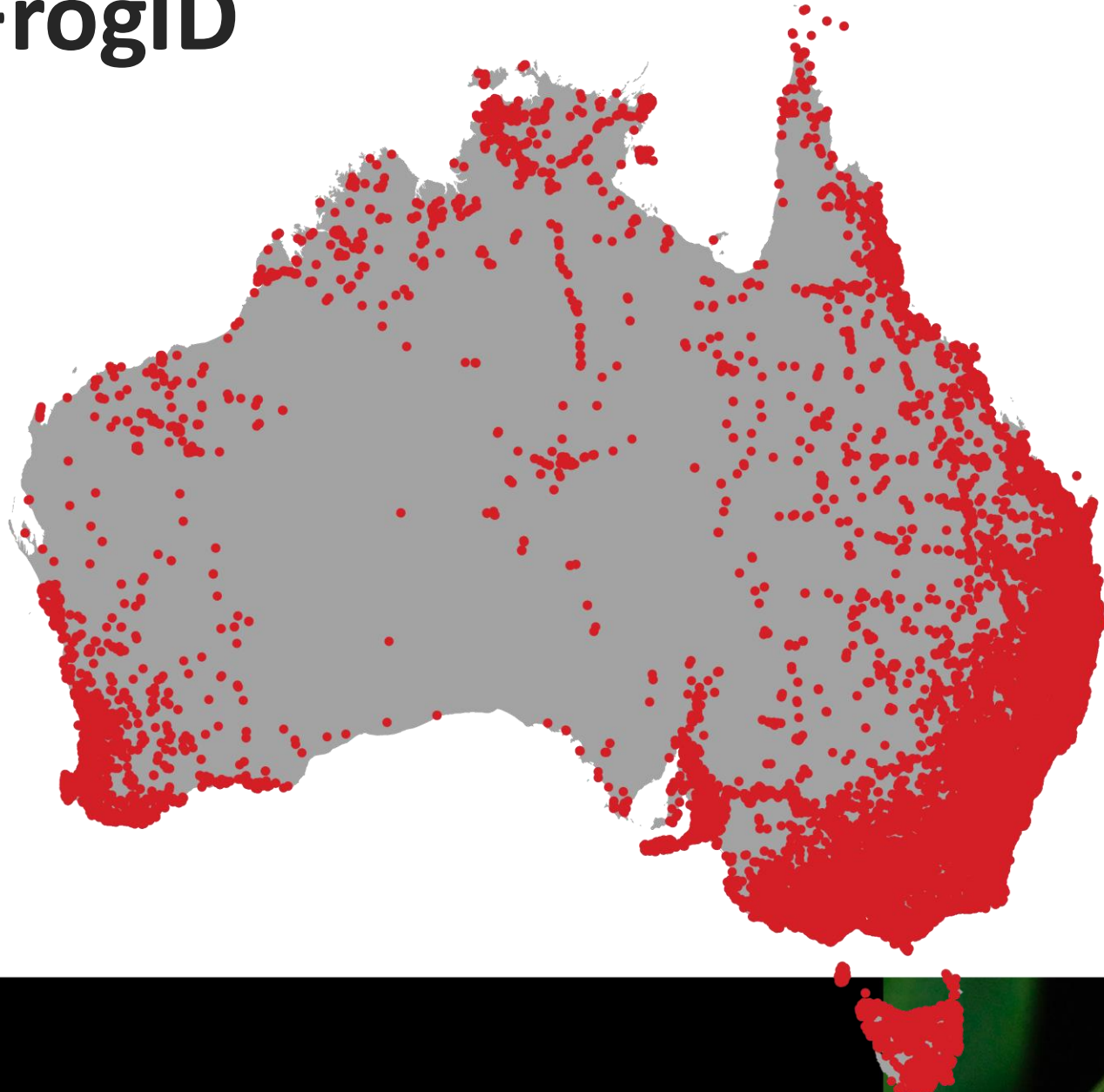
Not a frog

Unidentified frog

Validator comment (viewable by public)



FrogID



~95,000
registered users

~52,000
users submitted

~1,185,000
frog records

225
frog species

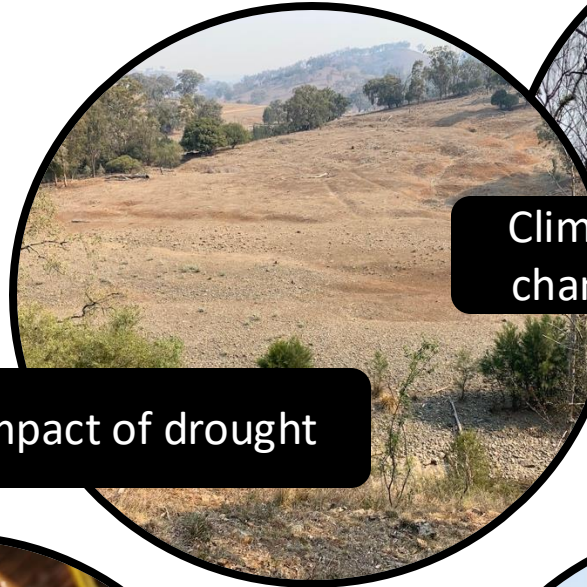
frogid.net.au



FrogID

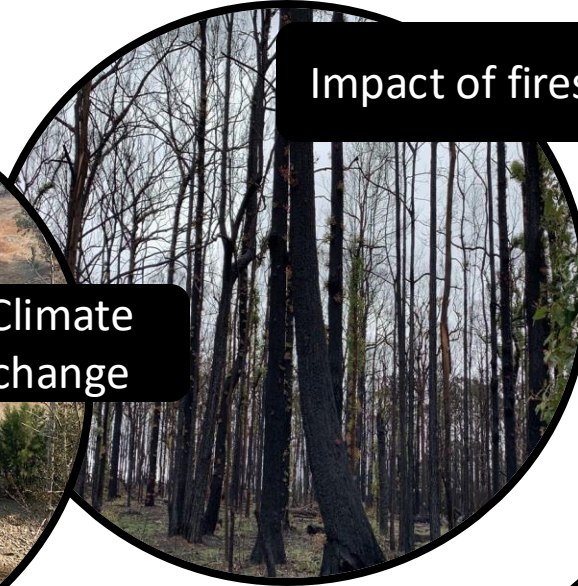


Frog distributions



Impact of drought

Climate change



Impact of fires



New species discovery



Threatened species records



Impact of land use change



Invasive species

FrogID & AI

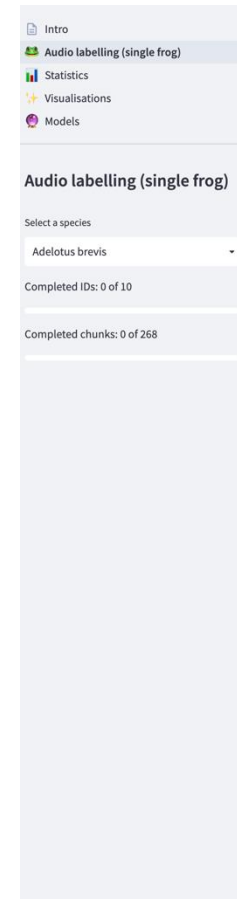
Atlassian Engage4Good

Model Architecture:

- PaSST audio embedding as input features
 - Using multiclass logic regression
 - Training data 'chunked' (not tagged)

Model scope:

- Greater Sydney area (42 species)
- Triage: complexity rating

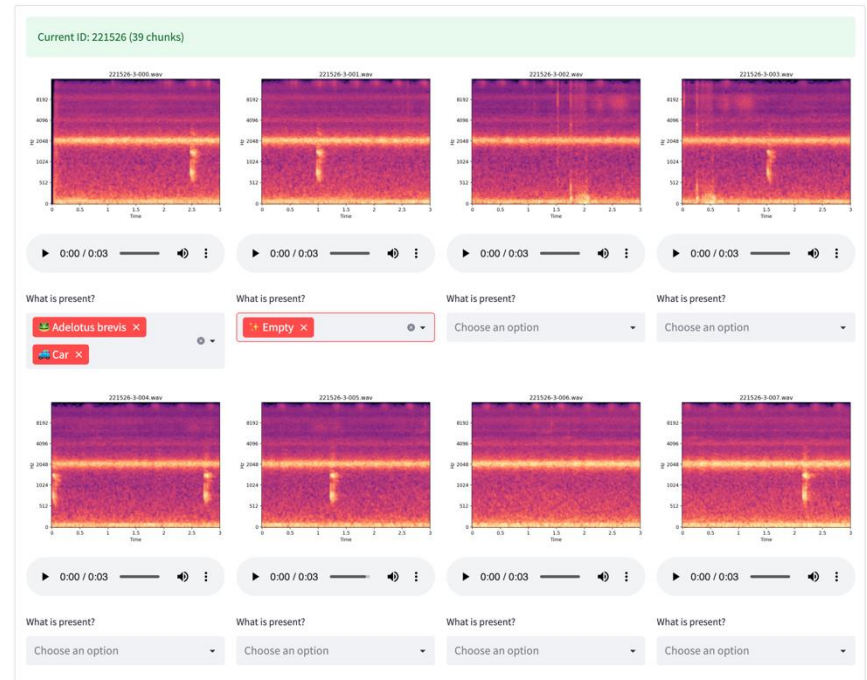


Audio labelling (single frog)

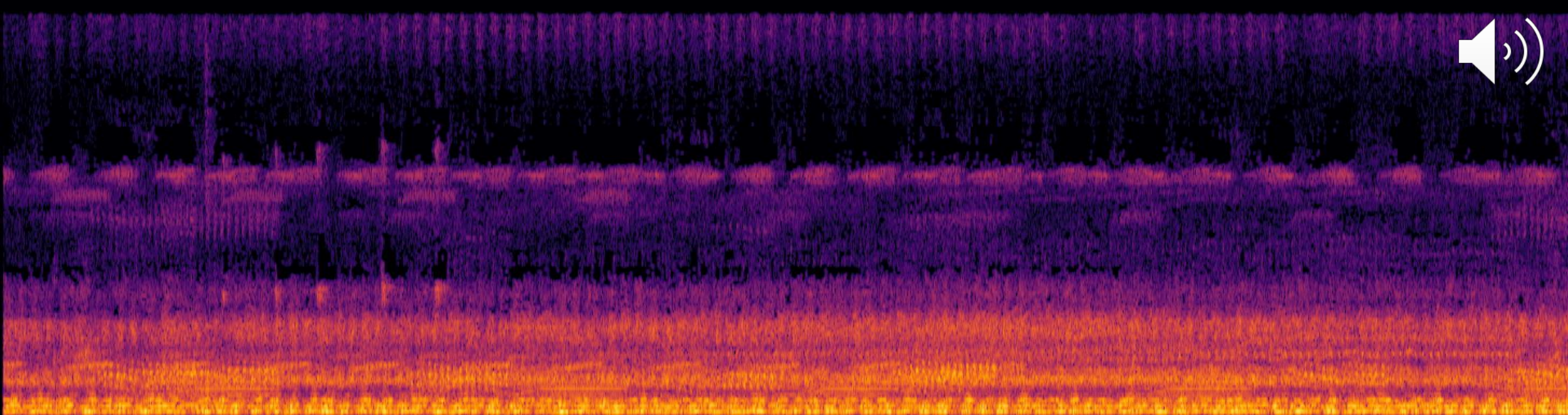
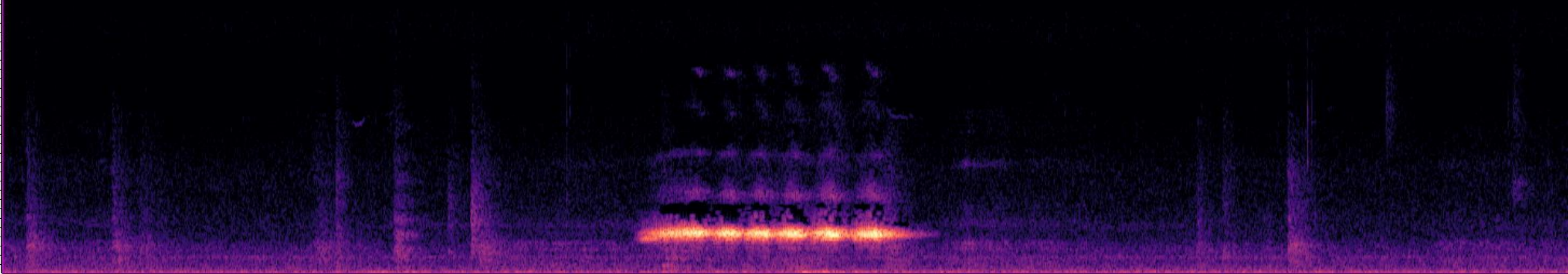
Here we will verify the presence of frogs in chunks of audio. To begin with we tackle the simple case of single frogs. It is important to also tag whether or not there are insects, birds or humans present. Empty recordings also need to be explicitly labelled.

Preload these into every chunk (useful for insects or constant croaking)

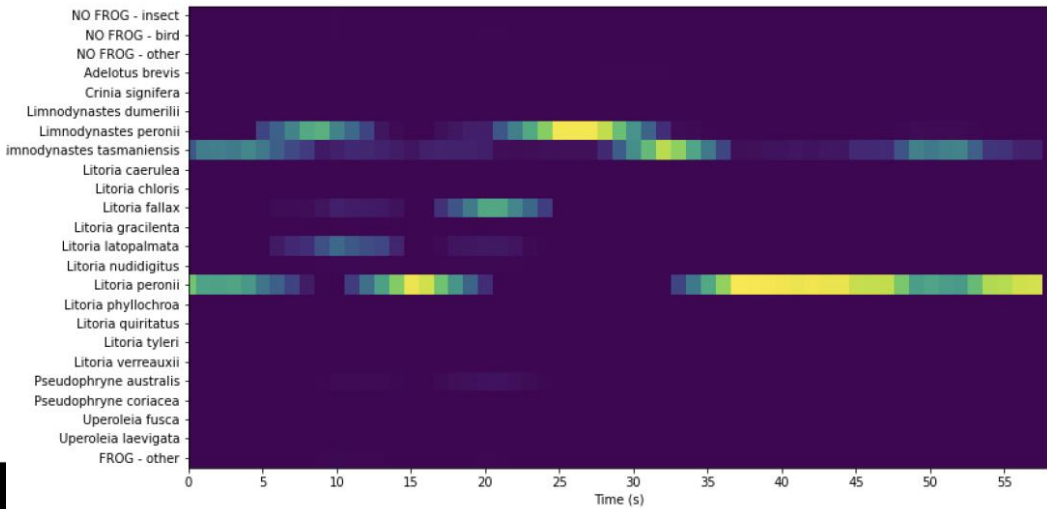
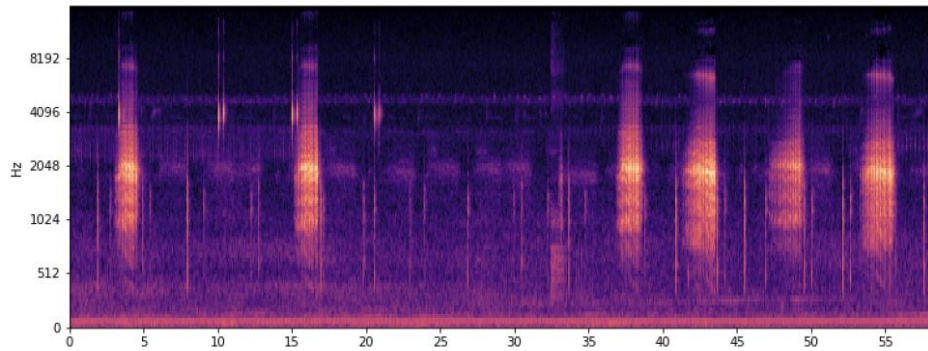
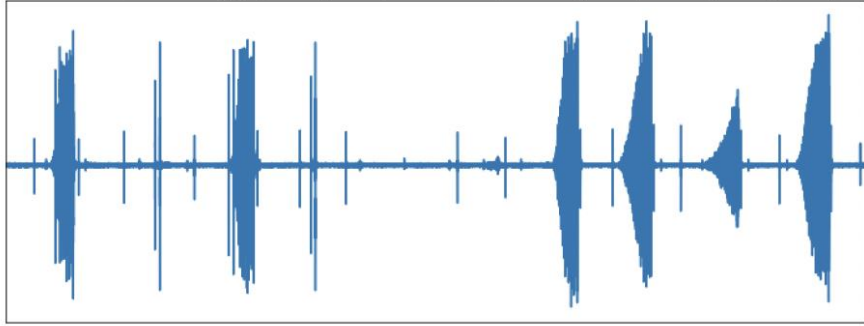
Choose an option



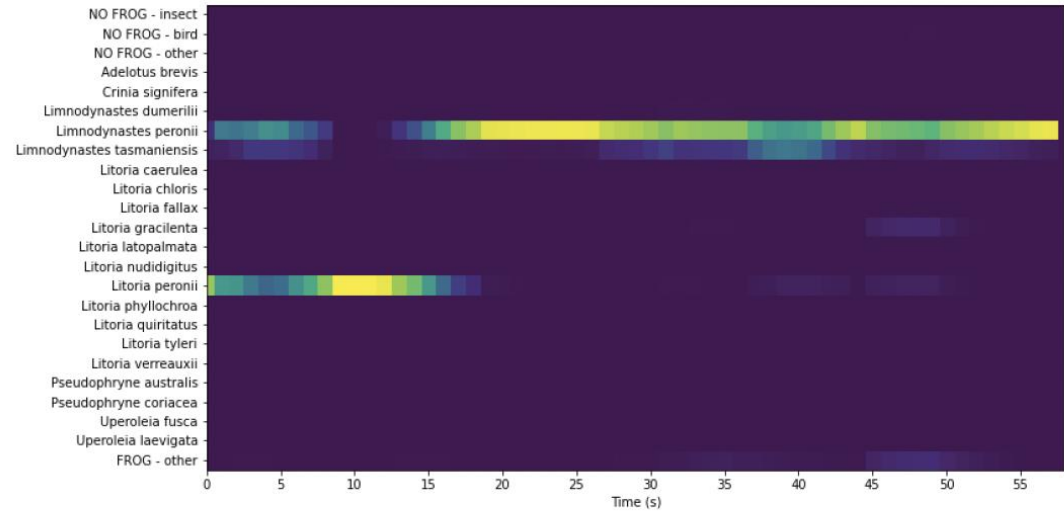
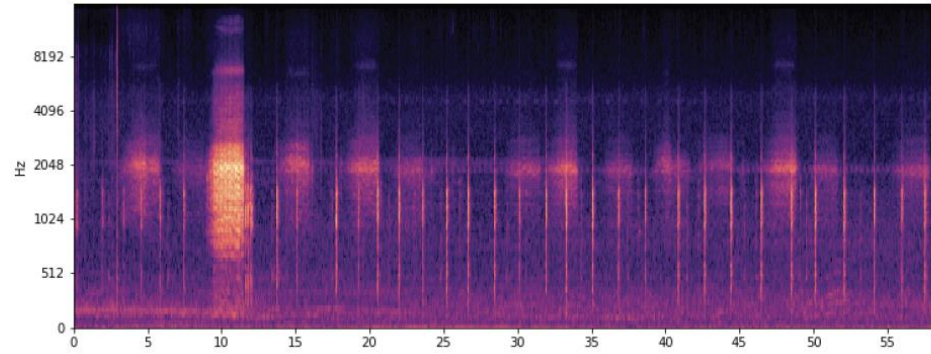
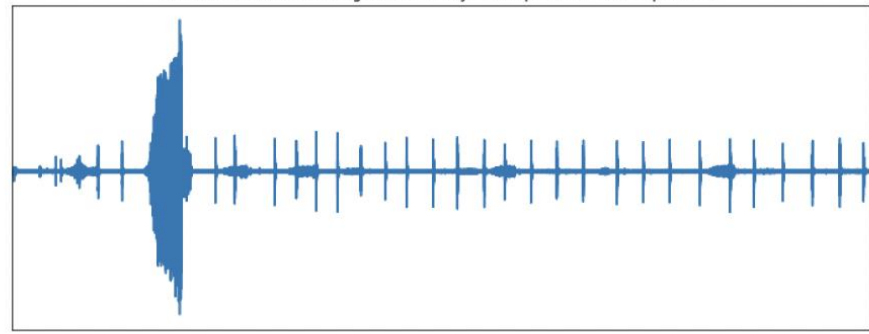
FrogID & AI



id: 300911, validated frog(s): ["*Litoria peronii*", "*Litoria fallax*", "*Crinia signifera*", "*Limnodynastes peronii*"]



id: 162831, validated frog(s): ["*Limnodynastes peronii*", "*Litoria peronii*"]





Supporting Partner



NSW Biodiversity Conservation Trust



This project received grant funding from the Australian Government

Museum Partners



QUEENSLAND MUSEUM



Queensland Government

