


# Biodiversity Study

Developing Species Distribution Model for Litoria Fallax

Challenge Proposed By: EY

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# Problem Statement

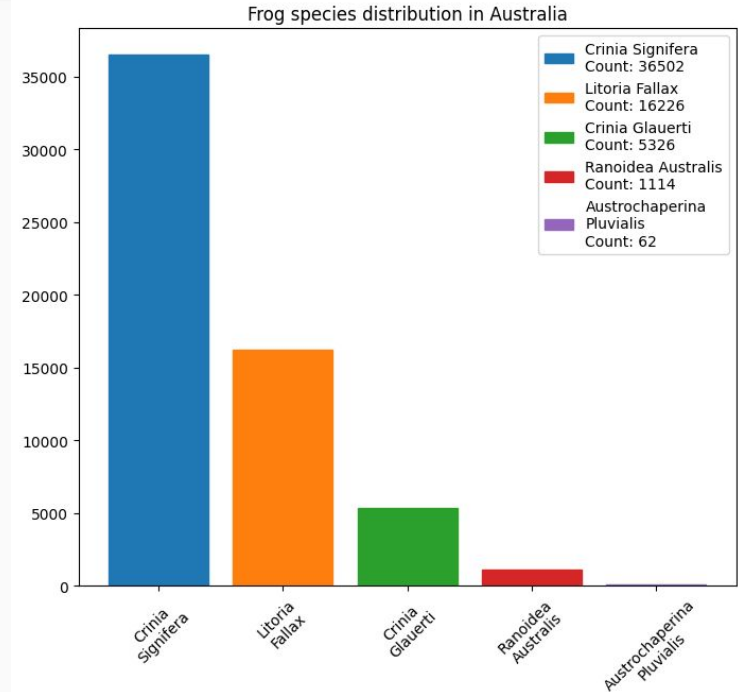
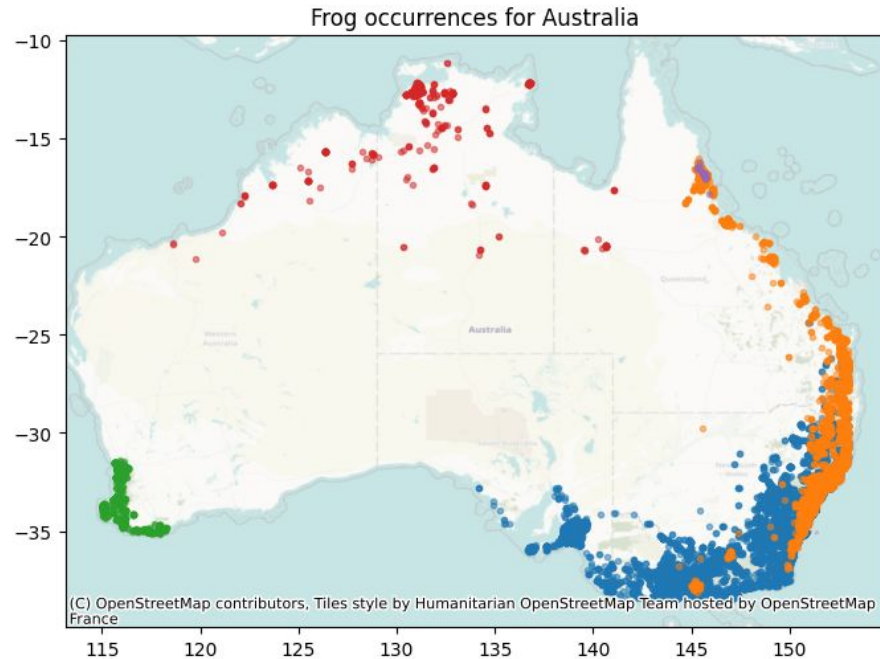
## Predicting Frog (*Litoria Fallax*) Occurrence Using Satellite Imagery and Geospatial Data

- Frogs are an indicator species, which means they are a go-to for scientists wanting to find out more about the environmental health of a particular ecosystem.
- Species distribution models (SDMs) are widely used ecological tools, a cornerstone in many countries worldwide of environmental regulation and conservation.
- In this project, we aim to develop SDMs of frogs from satellite imagery and complementary geospatial data, such as climate, elevation and land cover.

# Our Approach

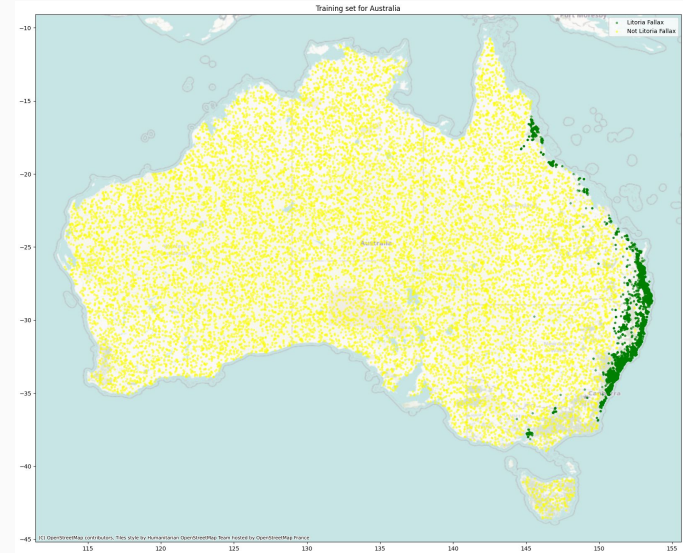
- Background Research about the habitat of Litoria Fallax
- Understood Frog Occurrence Dataset
- Resolved Sampling Bias in the Dataset
- Feature selection based on temporal and spatial characteristic
- Model Building
- Evaluation

# Presence of Each Species of Frogs



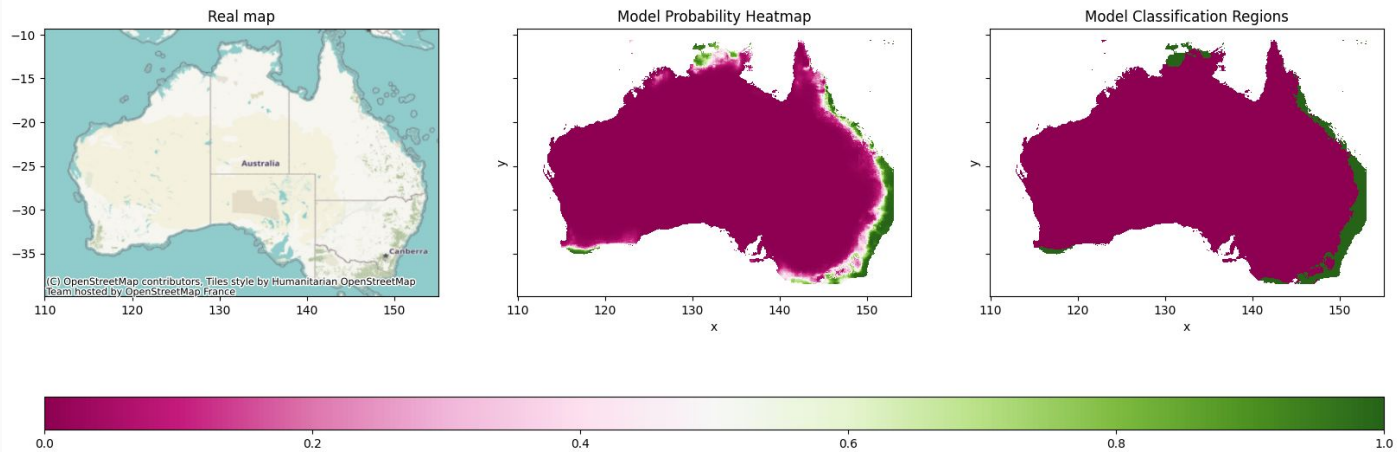
# Presence of Litoria Fallax

The green coloured region on the map indicates the occurrence of Litoria Fallax on the country of Australia.



# Probability Heatmap

Logistic Regression Model Results - Australia



Thank You