



A museum display showing real-time bird vocal activity using BirdWeather/BirdNET

Iriomote cat illustration by Prof. Mitsuru Moriguchi, Okinawa University.



Objective

We wanted a museum display that shows a real-time feed of bird species identified at a specific site using their vocalizations. To do this, we developed a custom app using the BirdWeather API which is intended to be paired with a BirdWeather PUC listening station.

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Github Repo

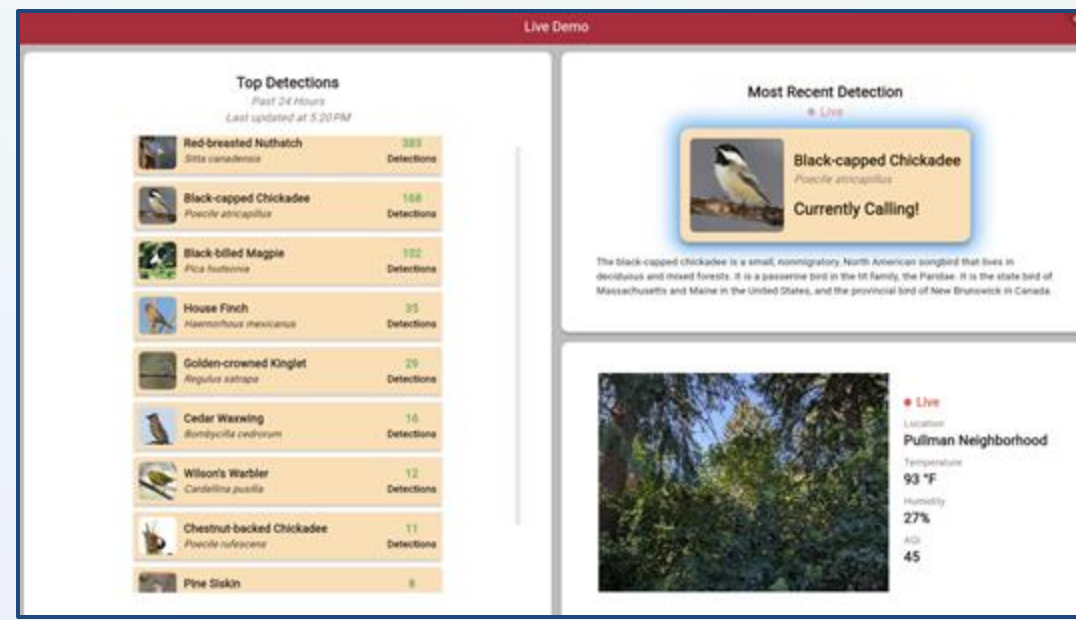


BirdNET / Birdweather

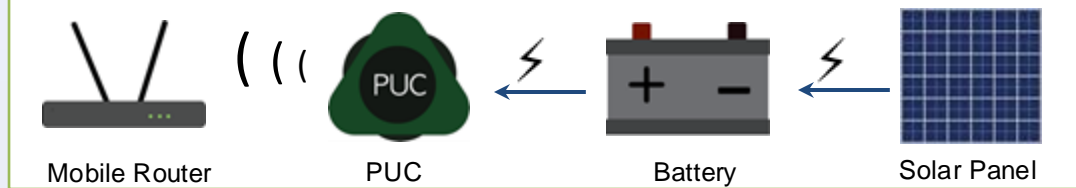
- BirdNET is a deep artificial neural network used to identify bird sounds[1].
- BirdWeather is a platform that aggregates recording stations running BirdNET[2].
- BirdWeather PUC is a device created by Scribe Labs that records bird sounds and environmental data. This information is sent to the BirdWeather server and sounds are interpreted using BirdNET.

We are not affiliated with either BirdNET or BirdWeather.

[1] Kahl et al. 2021. "BirdNet, A deep learning solution for avian diversity monitoring."
[2] BirdWeather.com, Scribe Labs



Hardware for Fully Remote Site



Outcomes

- We have written an open source software that can be shared and used by any educational organization.
- This can be used to educate guests about topics such as urban ecology or habitat differences while showcasing an emerging technology in bioacoustics research.
- This provides an opportunity for collaboration between educators and landowners.

Upcoming Features

- **Immersive Mode:** Displays fullscreen photo of the listening site with bird photo pop-ups as species are detected
- **Data Mode:** Graphing for recent detection data. For example, hourly detection bar chart