

**MICHIGAN STATE**  

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**UNIVERSITY**

# Beta Presentation

## Remote Wildlife Habitat Monitoring System

### The Capstone Experience

Team GM WHMS

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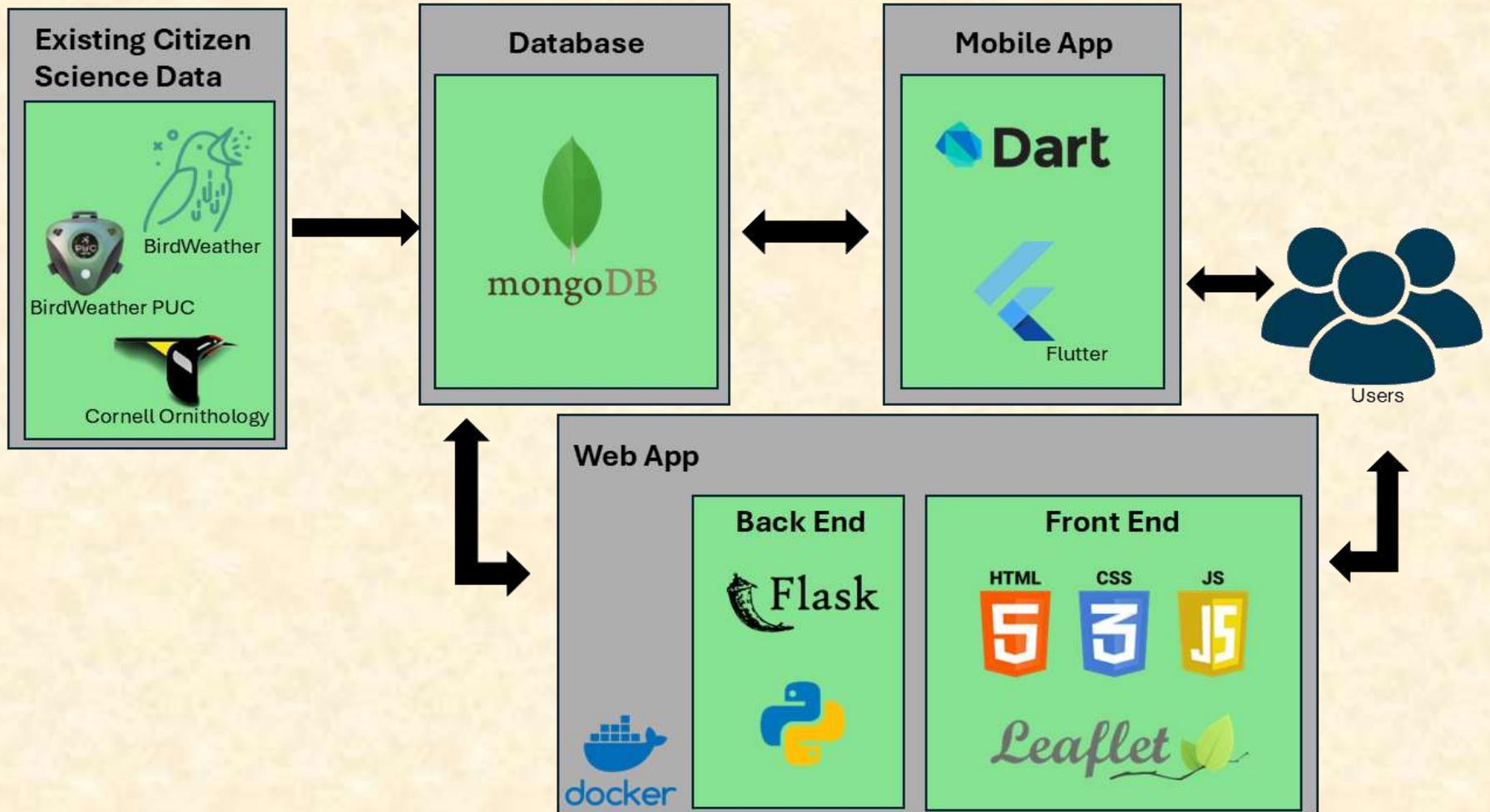
*From Students...  
...to Professionals*

# Project Overview

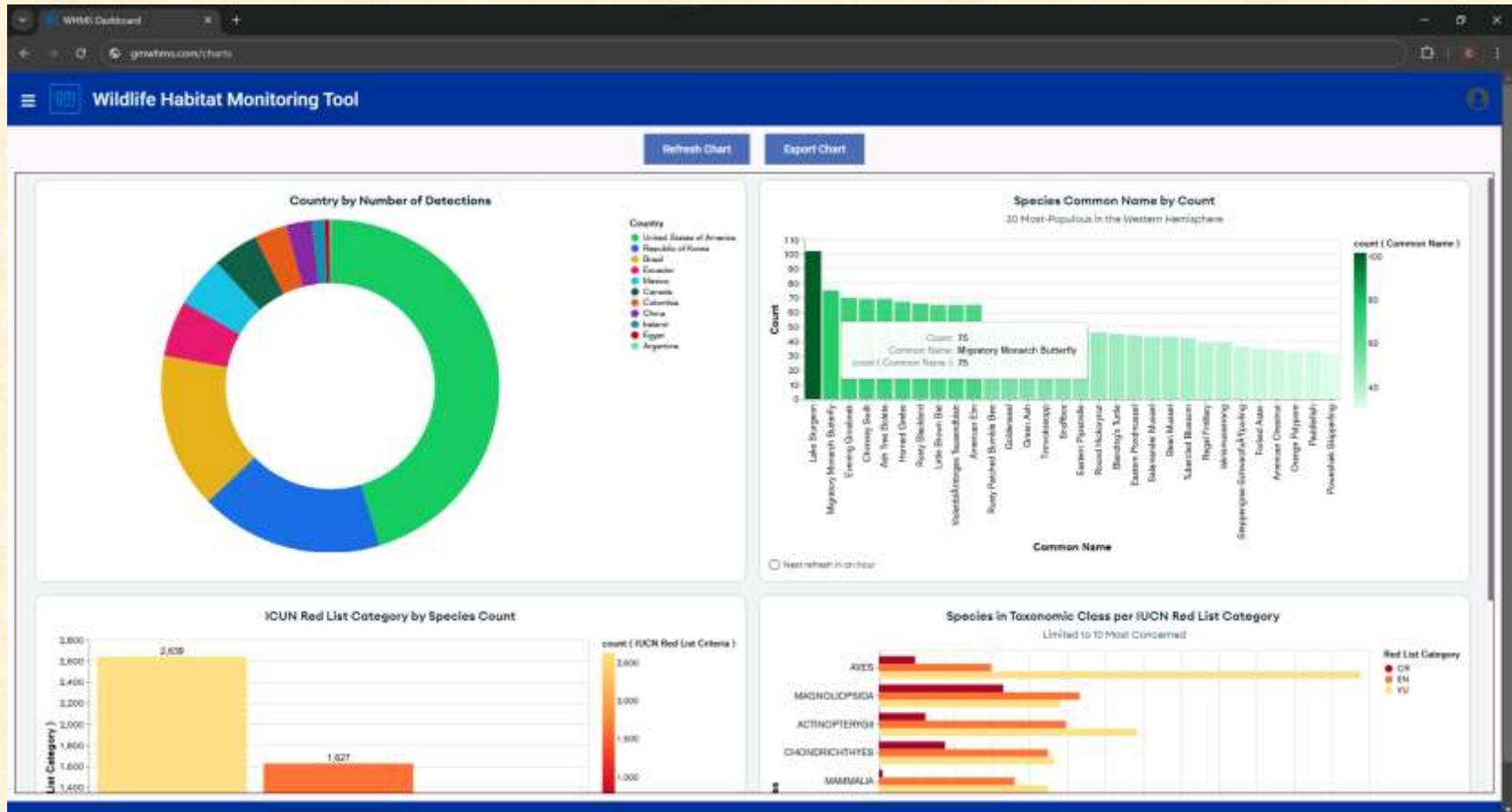
- **Problem:** Biodiversity data management across multiple platforms is inefficient, complicating GM's habitat monitoring efforts and habitat certifications
- **Solution:** Centralized software to streamline data collection to offer user-friendly analysis and support on-the-go data upload
- **Impact:** Reduced manual species tracking and manual data aggregation, allowing GM employees to focus on strategic conservation and completing certifications



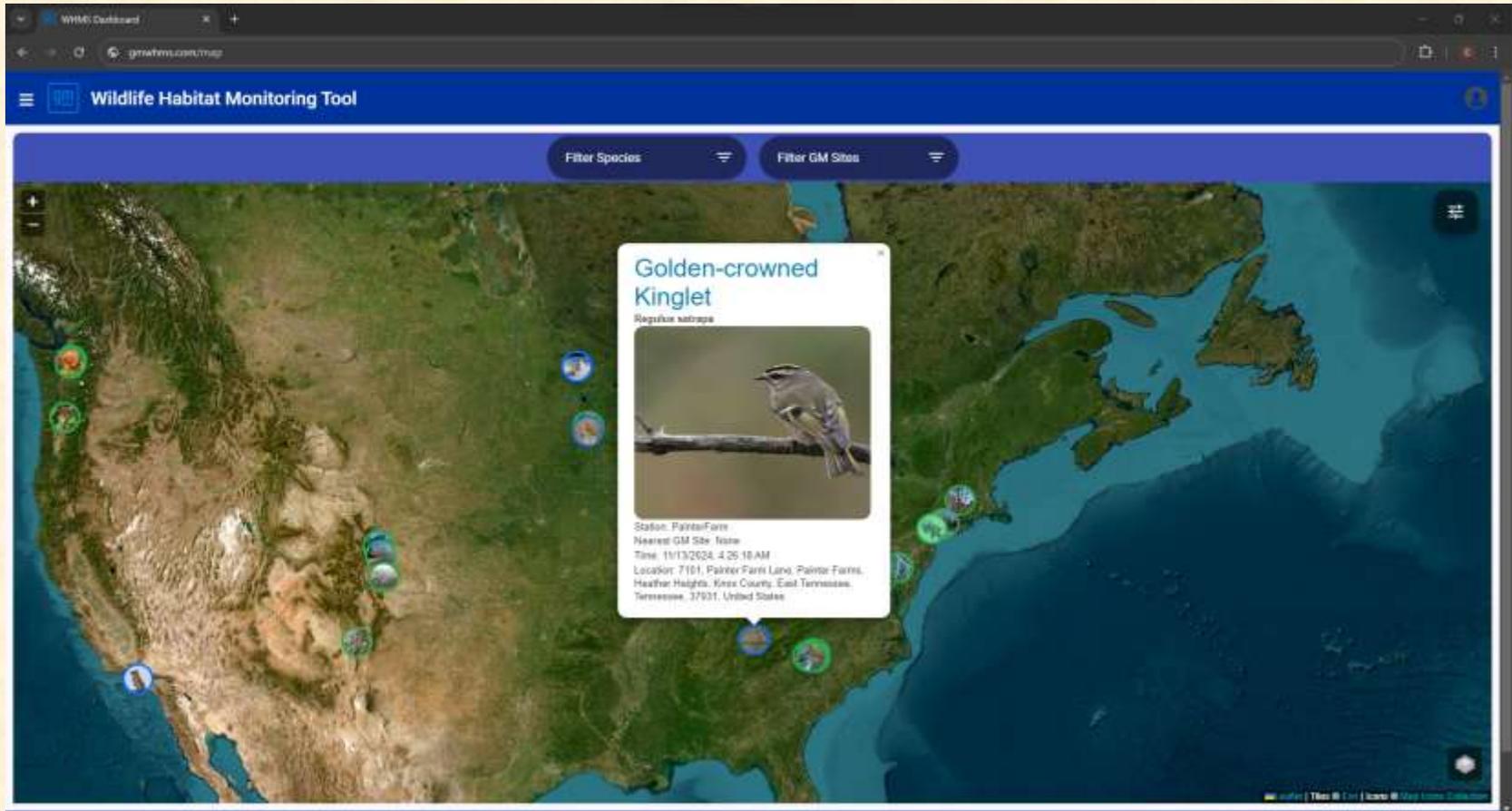
# System Architecture



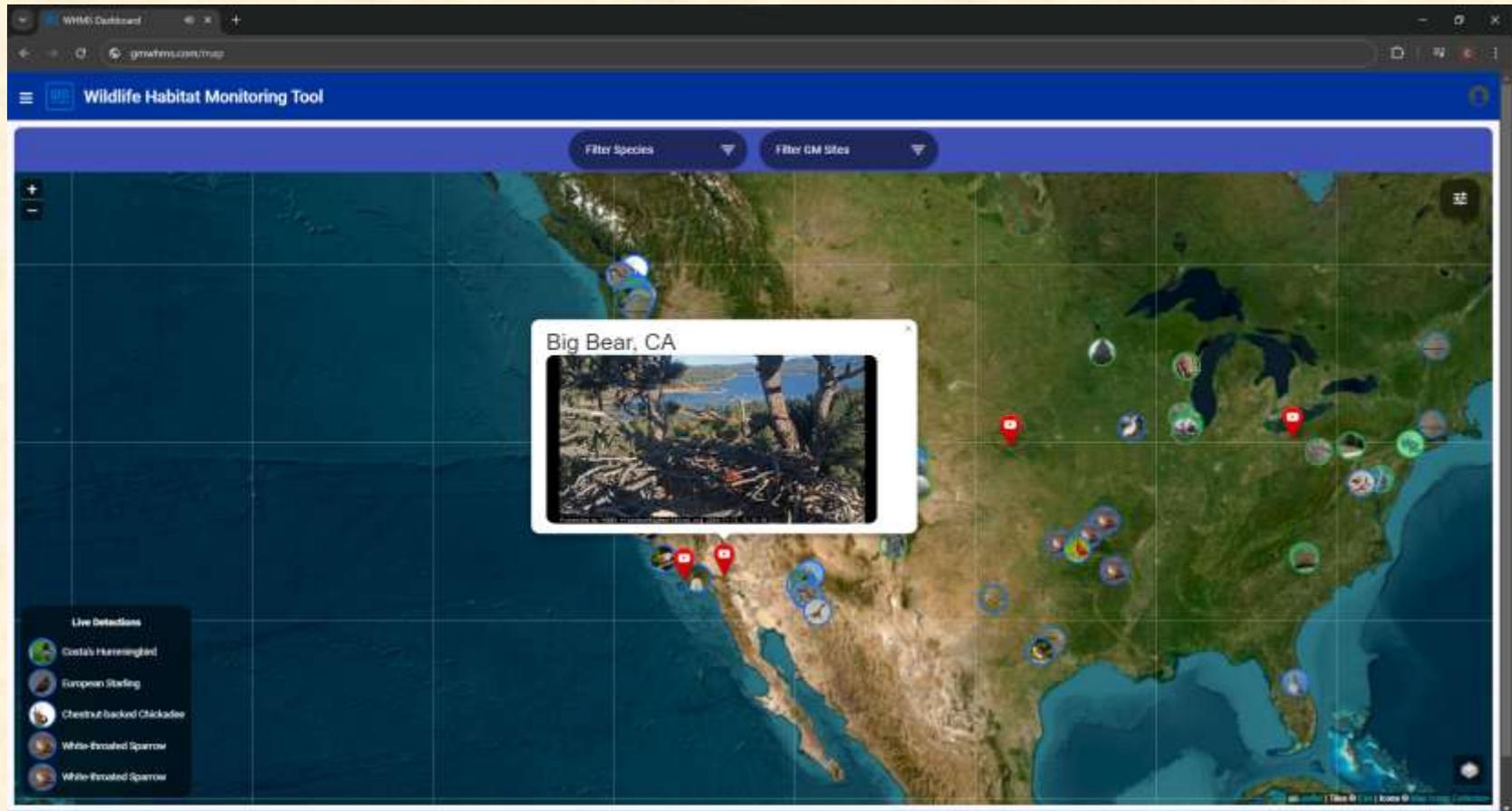
# Live Exportable Charts



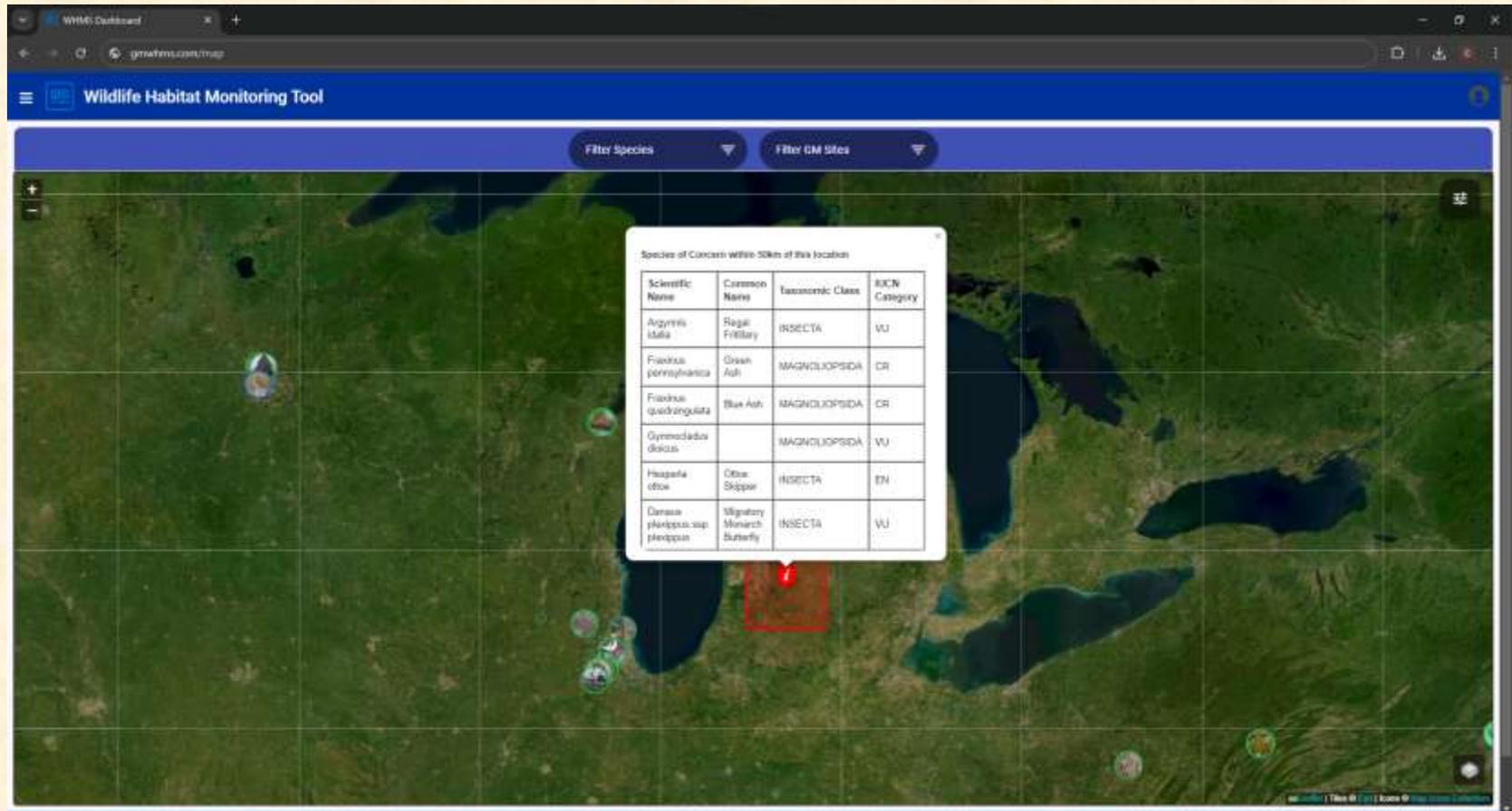
# Interactive Web Map



# Embedded Livestream Markers



# IBAT Report



Wildlife Habitat Monitoring Tool

Filter Species Filter GM Sites

Species of Concern Within 500m of this location

Scientific Name	Common Name	Taxonomic Class	IUCN Category
<i>Argynnis idula</i>	Regal Fritillary	INSECTA	VU
<i>Fraxinus pennsylvanica</i>	Green Ash	MAGNOLIOPSIDA	CR
<i>Fraxinus quadrangulata</i>	Blue Ash	MAGNOLIOPSIDA	CR
<i>Gymnocladia dioica</i>		MAGNOLIOPSIDA	VU
<i>Hesperia ottoe</i>	Ottoe Skipper	INSECTA	EN
<i>Carasa plebejus</i> ssp. <i>plebejus</i>	Stigmatid Monarch Butterfly	INSECTA	VU



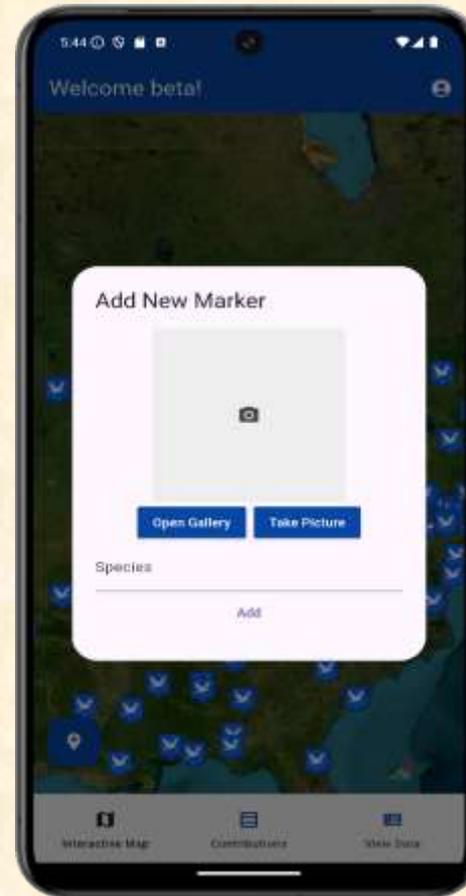
# View User Contributions

The screenshot shows a web browser window displaying the 'Wildlife Habitat Monitoring Tool' interface. The page title is 'Contributions'. At the top, there are filters for 'Sort by: Most Recent' and 'Filter by Species: (Type in filter location) Select Species'. On the left side, there is a list of contributions:

- American Crow  
Date: 11/13/2024, 6:14:54 PM
- Blue Jay  
Date: 11/13/2024, 6:13:33 PM
- Barn Owl  
Date: 11/13/2024, 6:14:33 PM
- Pileated Woodpecker  
Date: 11/13/2024, 6:13:28 PM
- Pileated Woodpecker  
Date: 11/13/2024, 6:15:34 PM

The main content area features a detailed view of a 'Barn Owl' contribution. It includes the species name 'Barn Owl', the date 'Date: 11/13/2024, 6:14:33 PM', and the location 'Location: Central Highway, Platte County, Nebraska, United States'. Below this information is a large, clear photograph of a Barn Owl, showing its characteristic heart-shaped face and mottled brown and white feathers.

# Mobile App Map + Add Data Popup



# What's left to do?

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- Features
- Stretch Goals
  - Increase Amount of Data for Analysis
  - GM Specific Chronolog Links
- Other Tasks
  - System Documentation
  - Overall Optimization
  - Upgrading Database Storage



# Questions?

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