

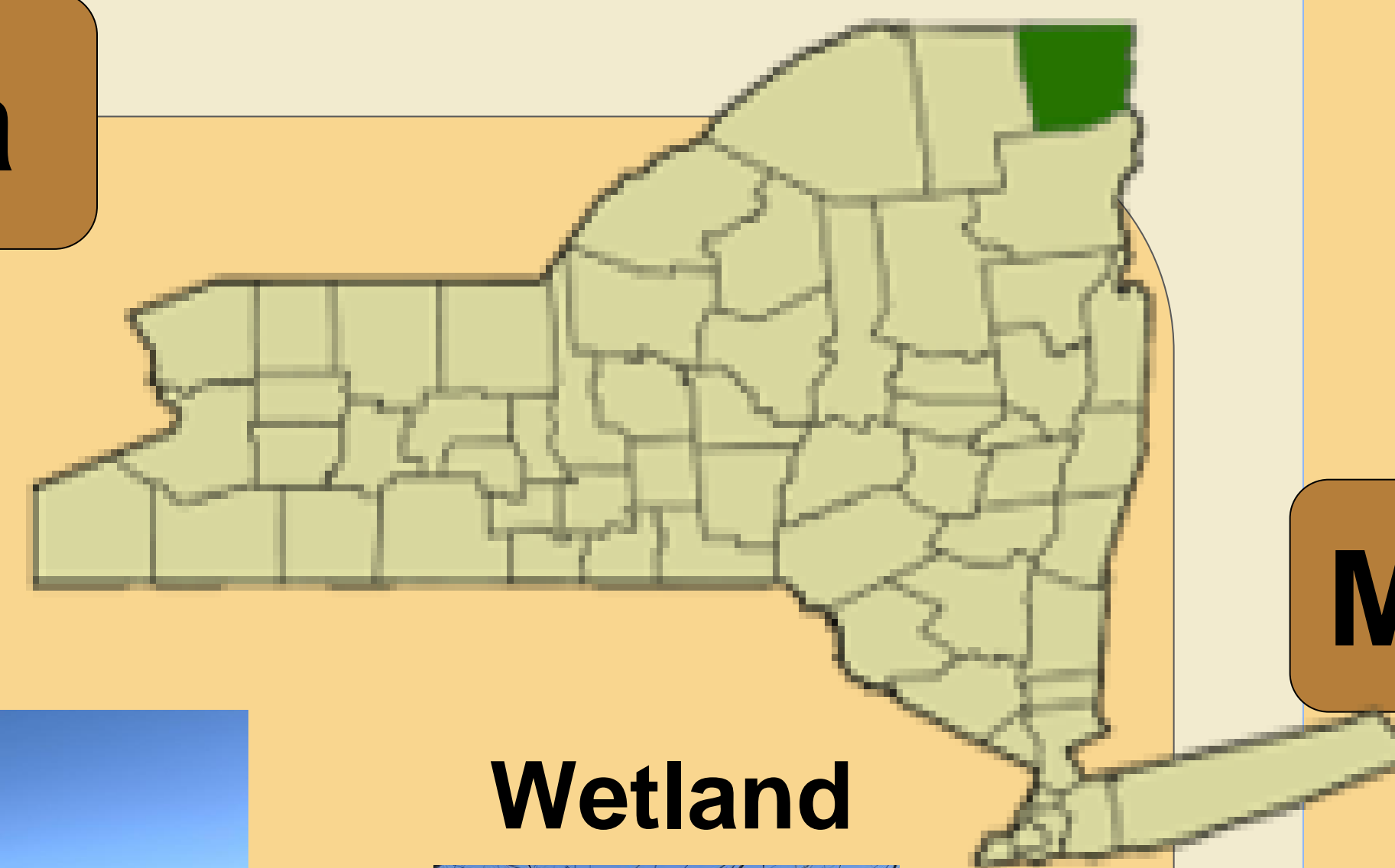


Goals & Hypotheses

- Evaluate avian biodiversity using passive surveys and active recording devices across microhabitats at Point au Roche State Park.
- We hypothesized that wetlands would have the highest diversity of avifauna and that passive autonomous recording devices (ARUs) would be the most effective method.

Study Area

Point au Roche State Park in Clinton County, NY



Forest



Meadow



Wetland



Methods

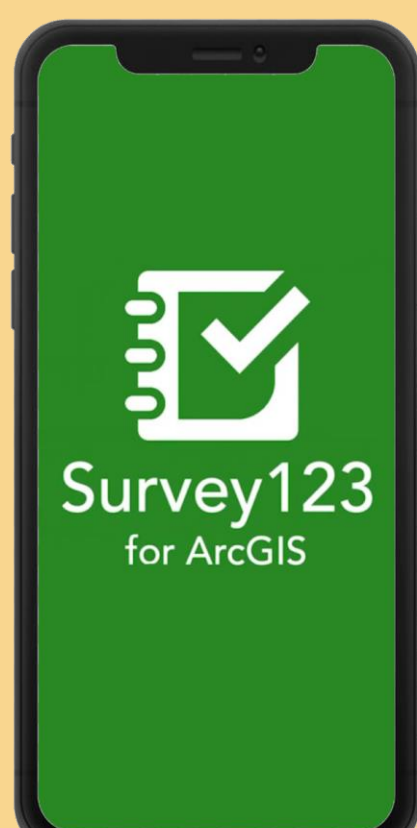
Passive Surveying – AudioMoths

- Recorded from 20:00-8:00 at each microhabitat for five days from 9/27/2024 to 10/2/2024
- Analyzed audio files through BirdNet Analyzer



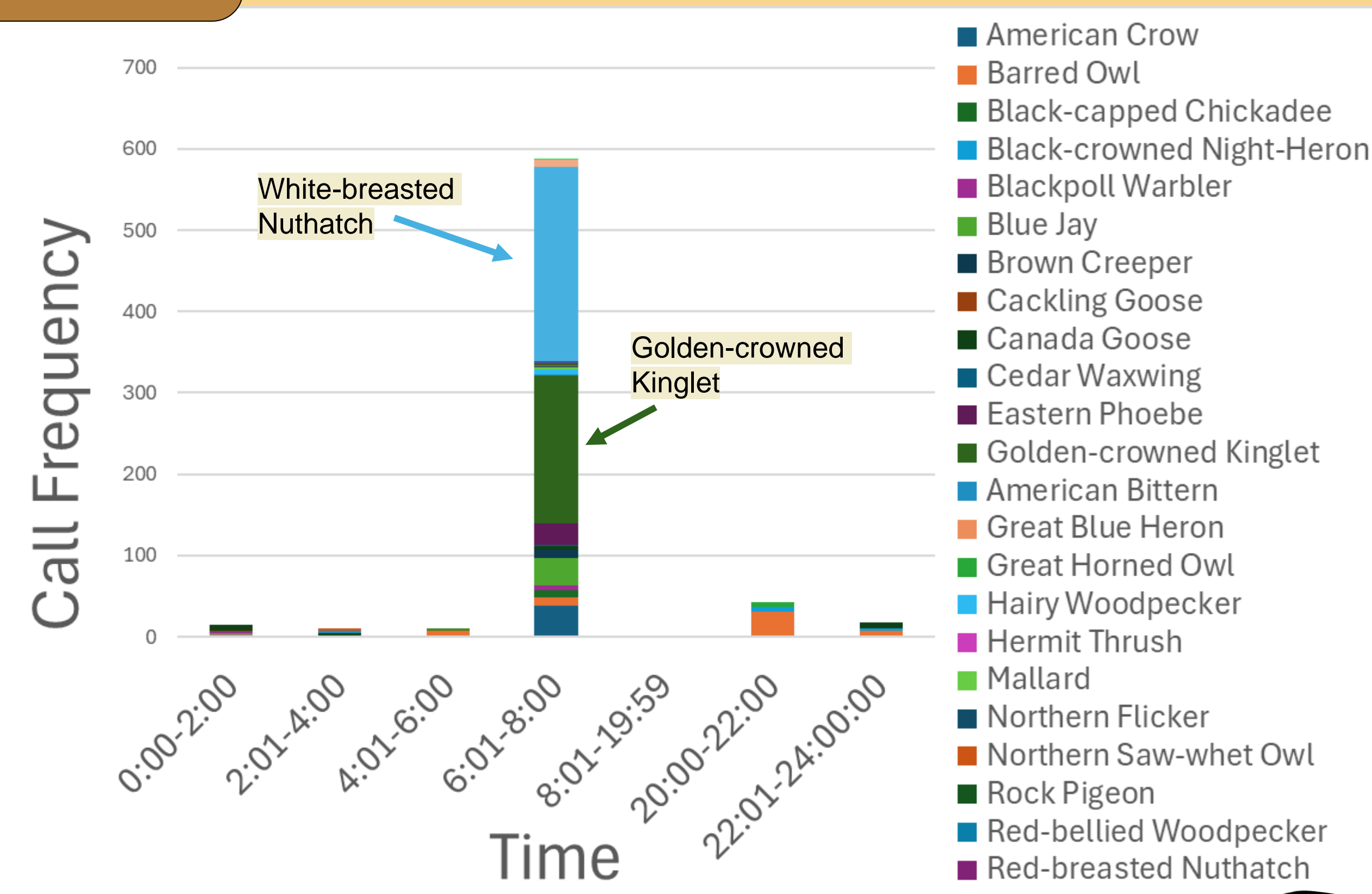
Active Surveying – Merlin Bird ID

- Collected point counts using three-ten-minute intervals 4 times from Sept- Oct 2024
- Recorded data in Survey123

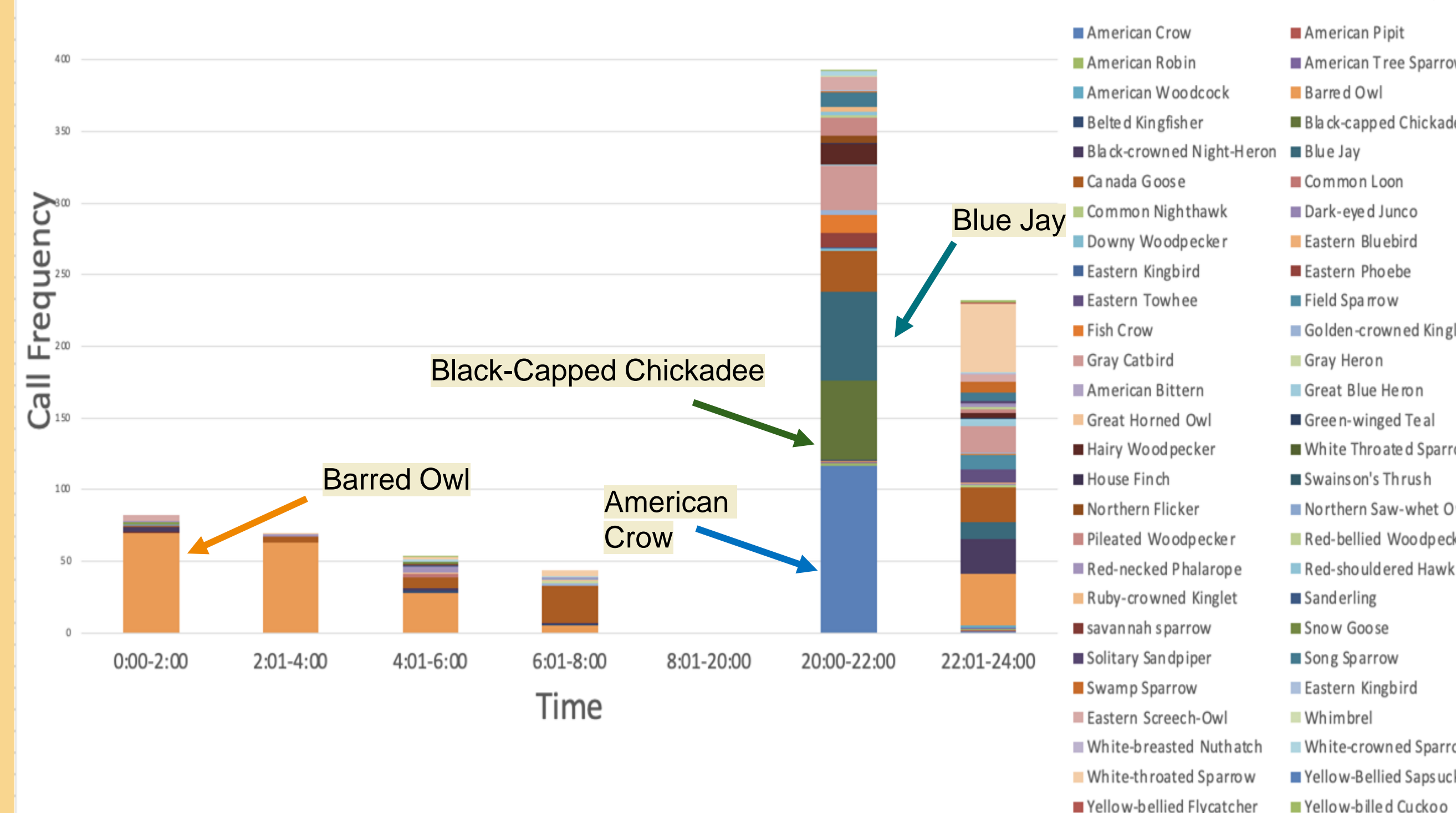


Passive Surveying

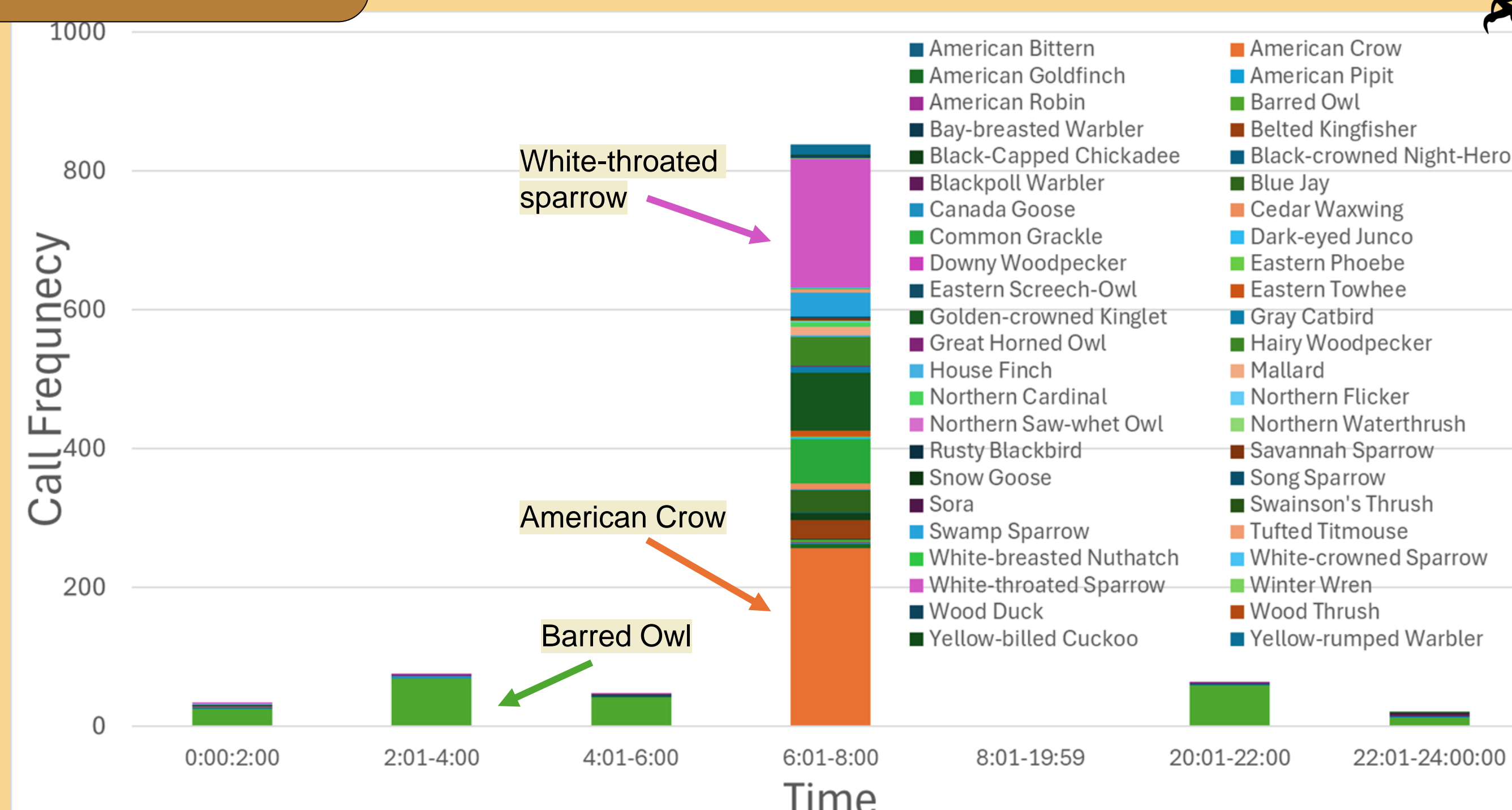
Forest S=27



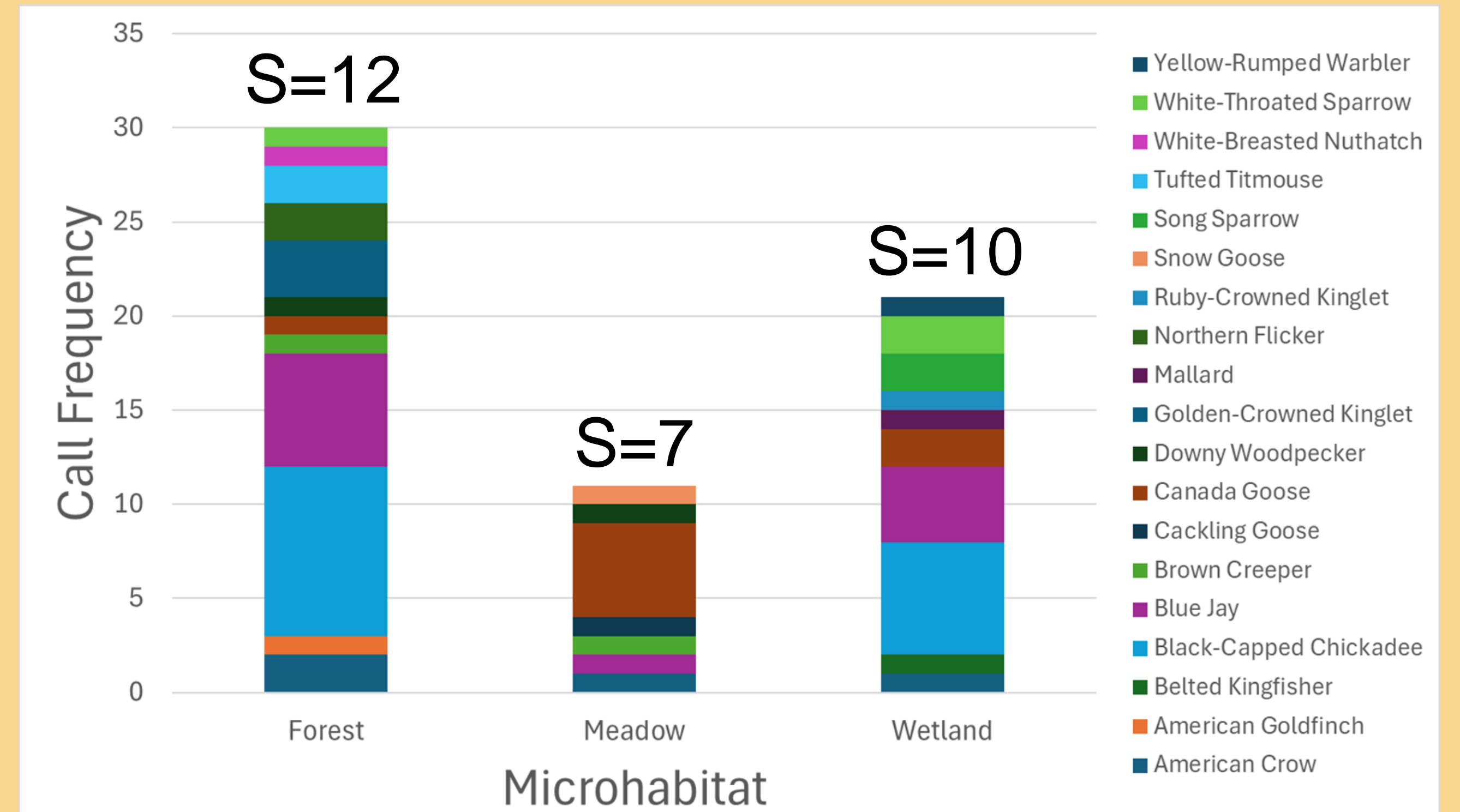
Meadow S=51



Wetland S=47



Active Surveying



Take Homes

- Passive and active methods found the meadow and forest to be the most species rich, respectively.
- Wetland and meadow sites were most similar (64%) with significant species overlap.
- ARUs, like AudioMoths, are inexpensive methods to gain preliminary presence/absence data at the regional landscape level.
- Artificial intelligence (BirdNet-Analyzer, Merlin) are effective in accurately identified common avifauna; however, caution should be used which engages experts in quality control.

Sites	Sorensen Similarity
Forest/Meadow	46.2%
Forest/Wetland	54.8%
Meadow/Wetland	63.9%

Scan to listen to calls!



Countless thanks to Dr. Mary Alldred and Jon Borrelli for their time-saving expertise in R studio programming.