

Monitoring for Future Management: Great Blue Heron Habitat in Discovery Park

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Background

- Habitat fragmentation in urban areas threatens many species populations
- Great blue herons are a keystone species
- Understanding great blue heron activity can provide information on what parts of the park are or aren't being utilized
- In order to better understand patterns of great blue heron habitat use, I investigated further in my research

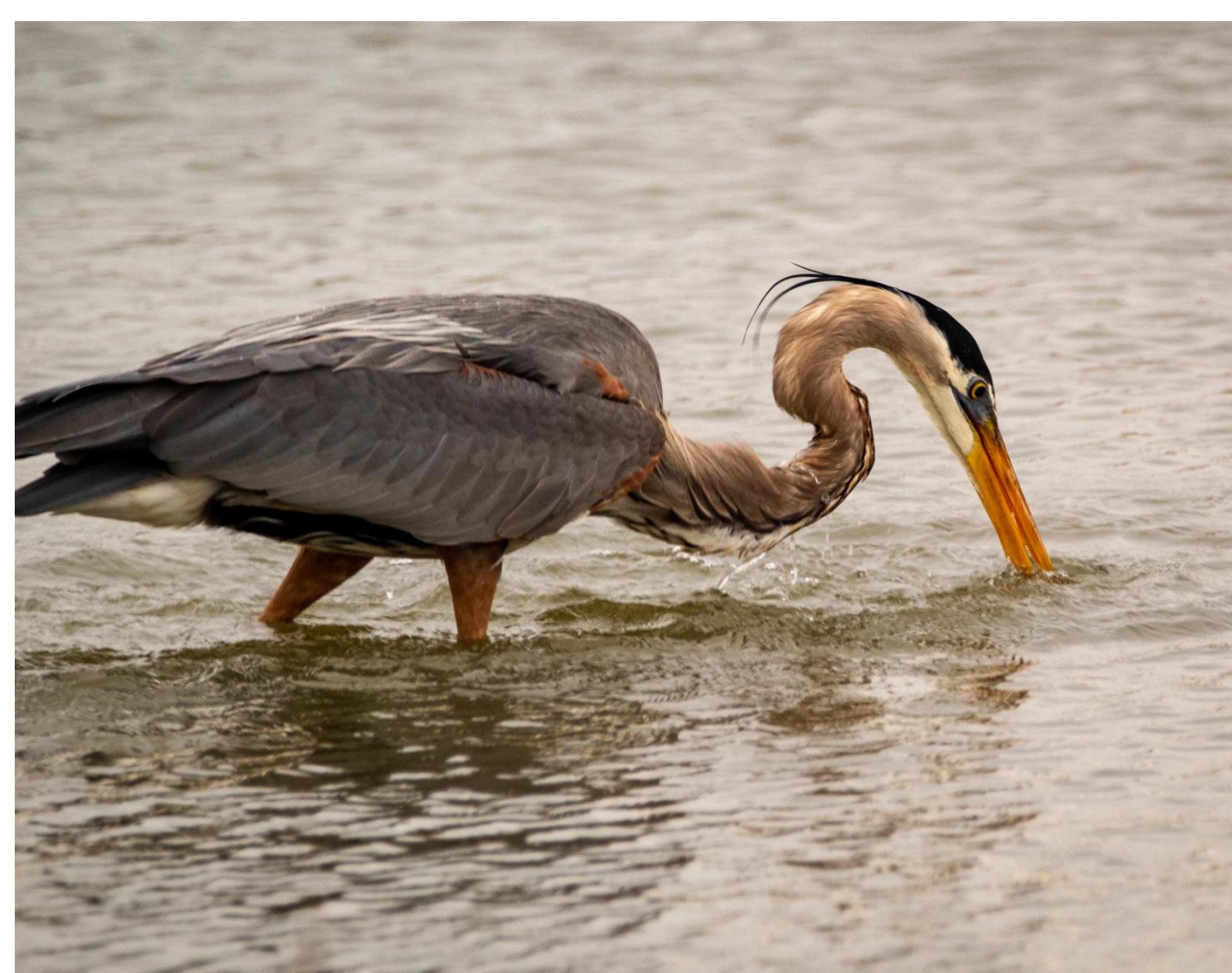


Figure 1: Great blue heron fishing in water (photo by Joshua Cotten).

Research Question

How are great blue heron population trends related to the habitat of Discovery Park?

Methods

- Observational survey data taken over a three month period focused at seven primary sites of varying habitat type, data includes flyovers
- Survey data was combined with iNaturalist data for a larger and more complete data set (see Figure 2)

Results

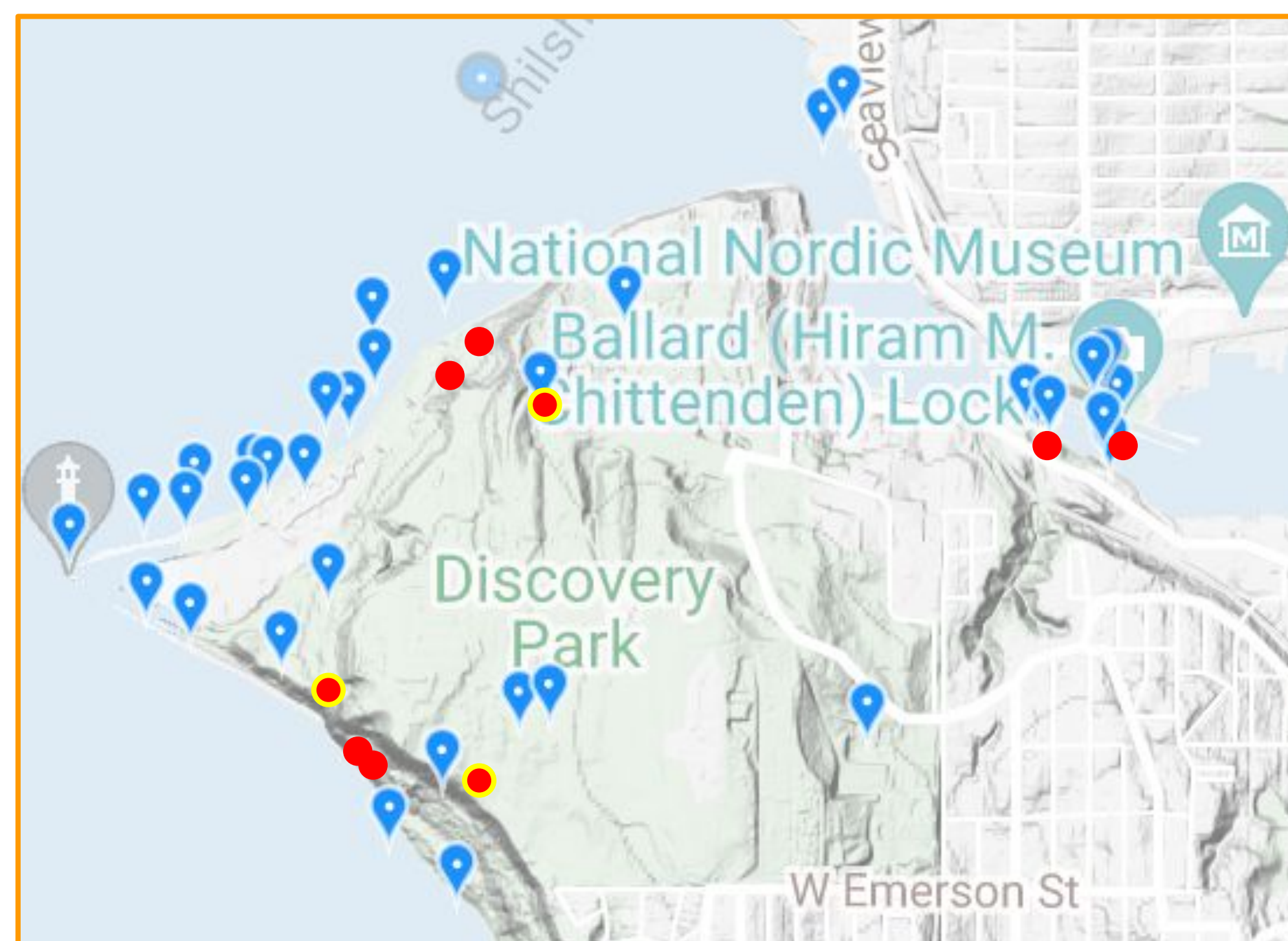


Figure 2: Map of Discovery Park with my great blue heron sightings reported as red markers. Markers with yellow outline indicates that the sighting was of a heron in flight. Blue markers indicate great blue heron sightings sourced from iNaturalist, displaying reported great blue heron sightings from 1/5/20 - 3/9/22.

Great Blue Heron Habitat Sightings

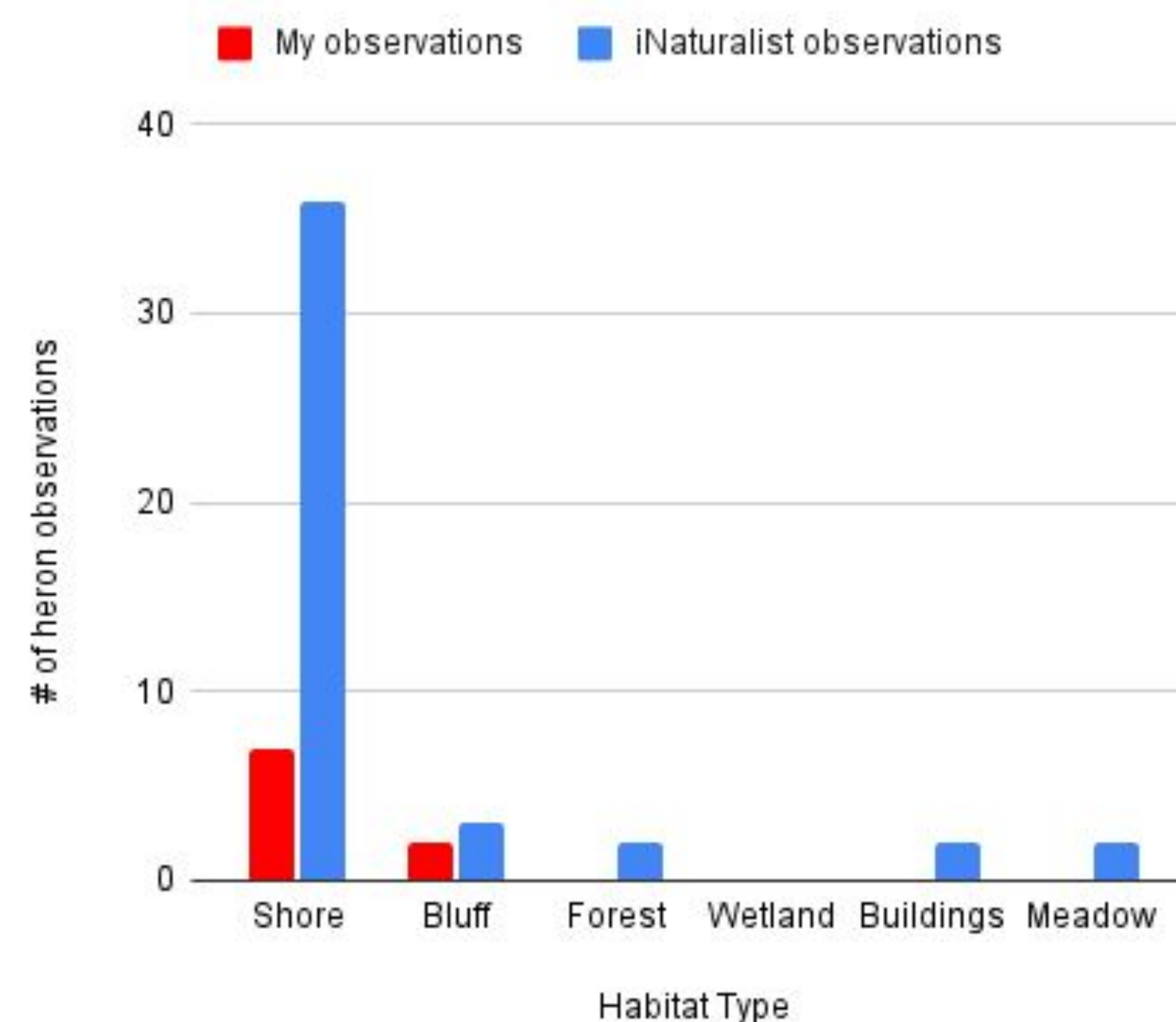


Figure 3: Table reporting the number of great blue heron observations at each habitat type. My data was collected from 1/5/22 - 3/9/22, and the iNaturalist data from 1/5/20 - 3/9/22.

Summary of Results

- Primary habitat use by great blue herons in Discovery Park is along the shore (see Figure 3)
- There is perhaps a less than expected presence of great blue herons in the upland areas of the park
- Given iNaturalist data, it is suggested that seasonality does not significantly impact the distribution of great blue herons in Discovery Park

Implications

- Discovery Park's bluffs and beaches are the primary habitat for great blue heron flyovers and foraging
- Maintenance projects aiming to benefit great blue herons directly should focus on bluffs and beaches
- Study in other seasons recommended



Figure 4: Photo of me birdwatching at Discovery Park.



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