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Determining Habitat Preferences of Great Egrets through Foraging Rates

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Determining Habitat Preferences of Great Egrets through Foraging Rates

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Introduction



Great Egret at the Mad River Slough



Great Egrets at the Agricultural Sites

Wading birds are associated with being opportunistic in their resource use and reliable indicators of where prey is, as well as telling us about the health of their environment. Great Egrets (*Ardea alba*) are adaptable and are found in a multitude of habitats, ranging from wetlands, ponds, rivers, agricultural areas and more.

Objectives

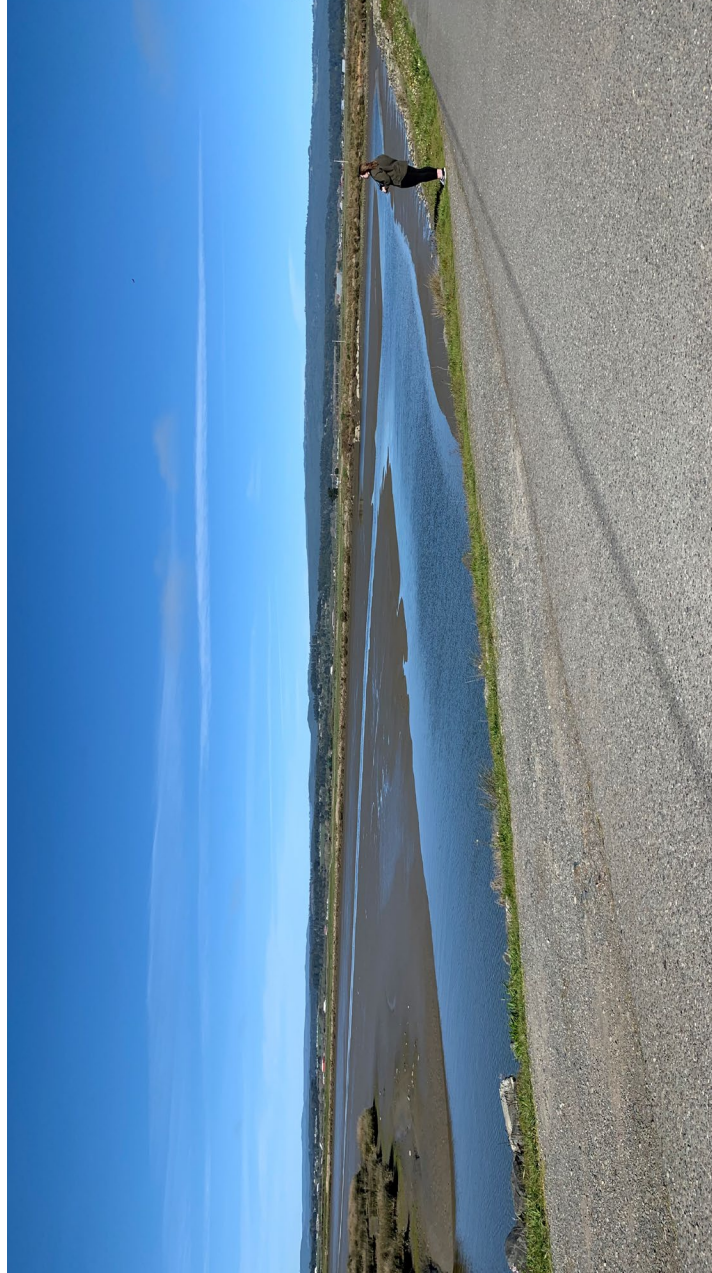
- Evaluate if there is habitat preferences for Great Egrets between three different areas across Arcata, California.

- Arcata Marsh
- Mad River Slough
- Agricultural Sites

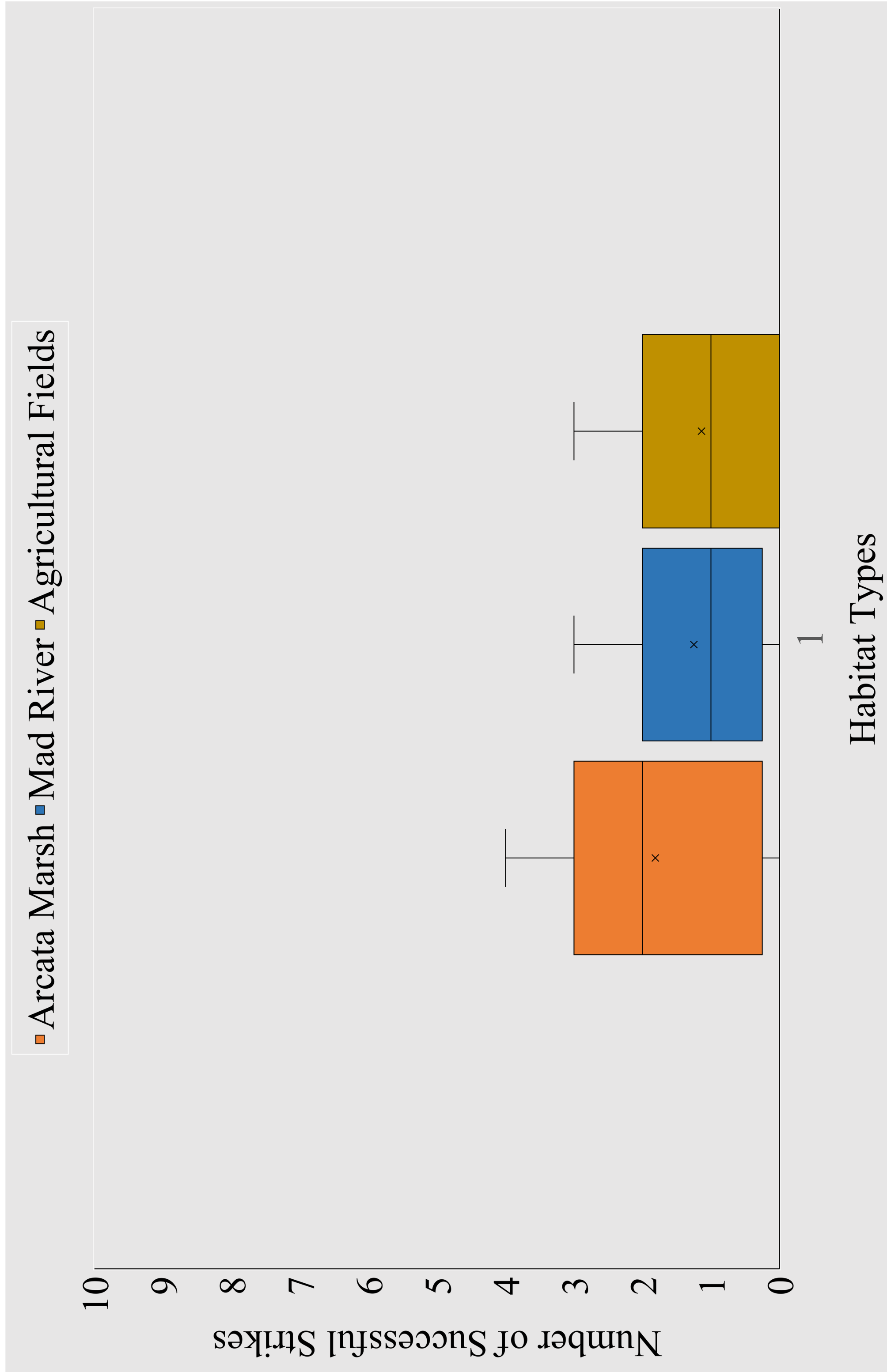
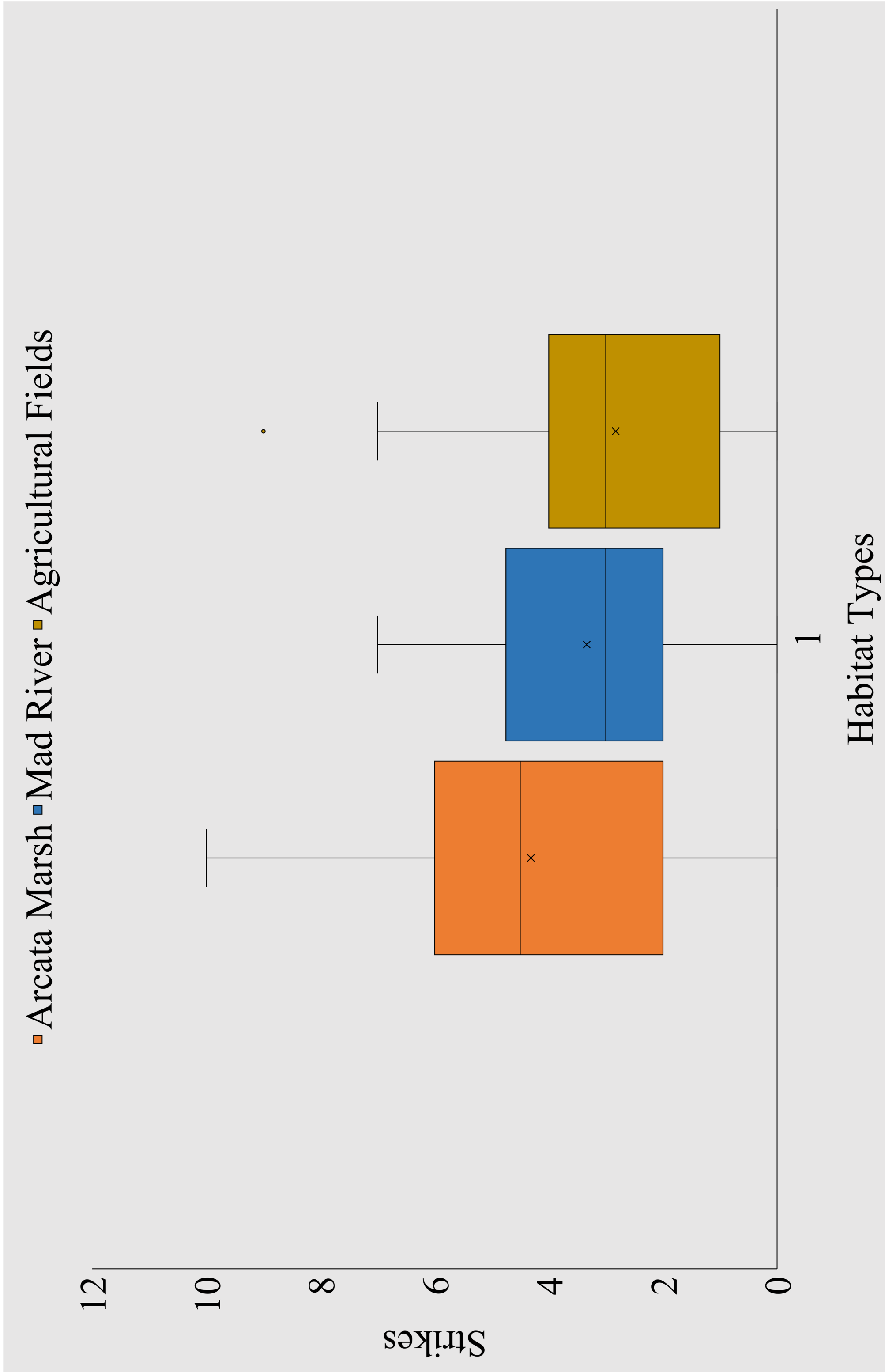
Methods

In the field

- Utilized binoculars and spotting scope
- Point count survey – 3 minutes minimum, 5 minutes maximum
- Actively recorded foraging by strikes and if it was successful



Results



- Ran two separate ANOVA tests on strikes and successful strikes between the three habitats
- Box plots were chosen to help visualize my data as they show overall patterns of responses for groups

Discussion

- Both ANOVA tests revealed that my results were not statistically significant
 - Strikes: (F(2, 54)=[2.072594], p= [0.14])
 - Successful Strikes: (F(2, 54)= [1.865815], p=[0.16])
- Ran a two-sample t-test between to compare the Arcata Marsh and the Agricultural Sites:
 - Strikes: p= 0.04
 - Successful Strikes: p=0.06
- I hypothesized that dedicating more time and observing a larger number of species will provide more solid results.

Management Implications

- Continuing to advocate for the conservation and protection of wetlands!

Acknowledgements

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- Also, to my friends Rachel Galloway and Stacy Cannon for assisting in transportation efforts between each habitat site making my project possible.
- Lastly, for my parents cheering me on from home and endlessly supporting my passions in the wildlife field.