# A Statistical Investigation of Rough-Toothed Dolphin Whistle Types

# Introduction

Introduction – Introduce the importance of studying dolphin vocalizations and why the rough-toothed dolphin's whistle repertoire is significant. Explain the need for a model and what the model provides to find the differences between the geographical locations of whistles.

## Methods

A few sentences outlining the modelling techniques used (ROCCA, ARTwarp, biodiversity measures, and visualization) in an accessible way.

Multinomial GLM Forest Method Explanation - can use "models summary" document to help write this part. Use images if possible.

Random Forest Method Explanation - can use "models summary" document to help write this part. Use images if possible.

# **Model Comparison**

#### Multinomial GLM Pros vs Cons

Random Forest Pros vs Cons

Explain the pros of using the multinomial GLM in bullet points

Explain the cons of using the multinomial GLM in bullet points

Explain the pros of using the Random Forest in bullet points

Explain the cons of using the multinomial GLM in bullet points

#### Multinomial GLM Results

Multinomial GLM Results present main findings (maybe include some visuals).

#### Random Forest Results

Random Forest Results present main findings (maybe include some visuals).

#### <u>Comparison</u>

Comparison of the two results and differences of the two models

### Final Model

Explain why we chose Multinomial GLM over Random Forest

## Conclusion

Summarize the findings and propose avenues for future research, such as applying similar techniques to other dolphin species. Refer to the other closely related group poster created by the biologist team.