

BEHAVIOR AND NATURAL CIRCADIAN RHYTHMS OF WILD BOTTLENOSE DOLPHIN (*TURSIOPS TRUNCATUS*) IN GALICIA (NW SPAIN)



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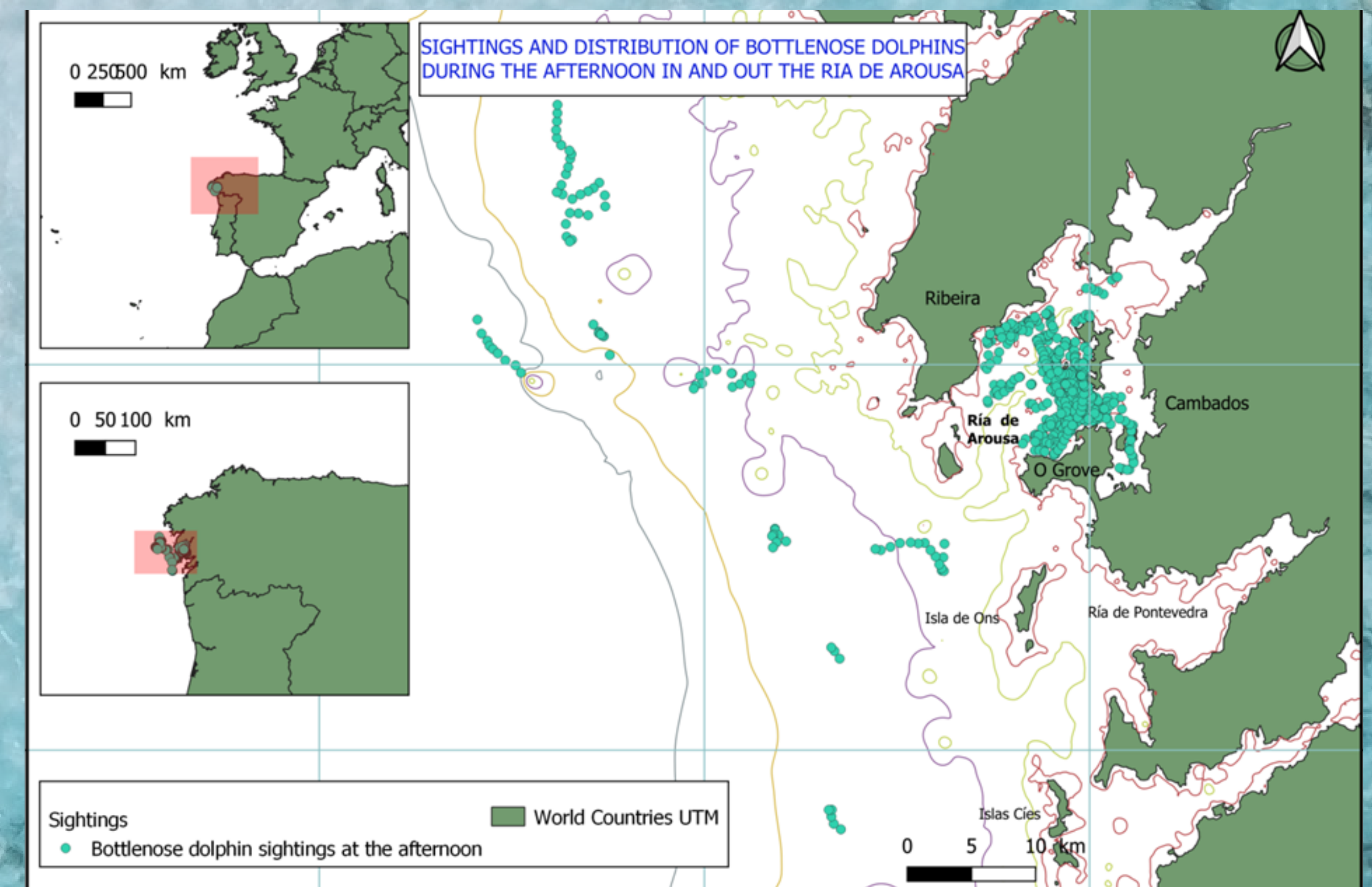
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INTRODUCTION

Biological rhythms are a natural periodic regularity associated with both geophysical cycles and endogenous control mechanisms which condition the life cycle. This association enables animals to improve physical and behavioral performance in response to environmental alternations and brings important adaptive gains. Understanding the behavioral variation with respect to circadian cycles of wild bottlenose dolphins (*Tursiops truncatus*) is essential for the protection, management, and conservation of this potentially vulnerable species.

RESEARCH OBJECTIVE

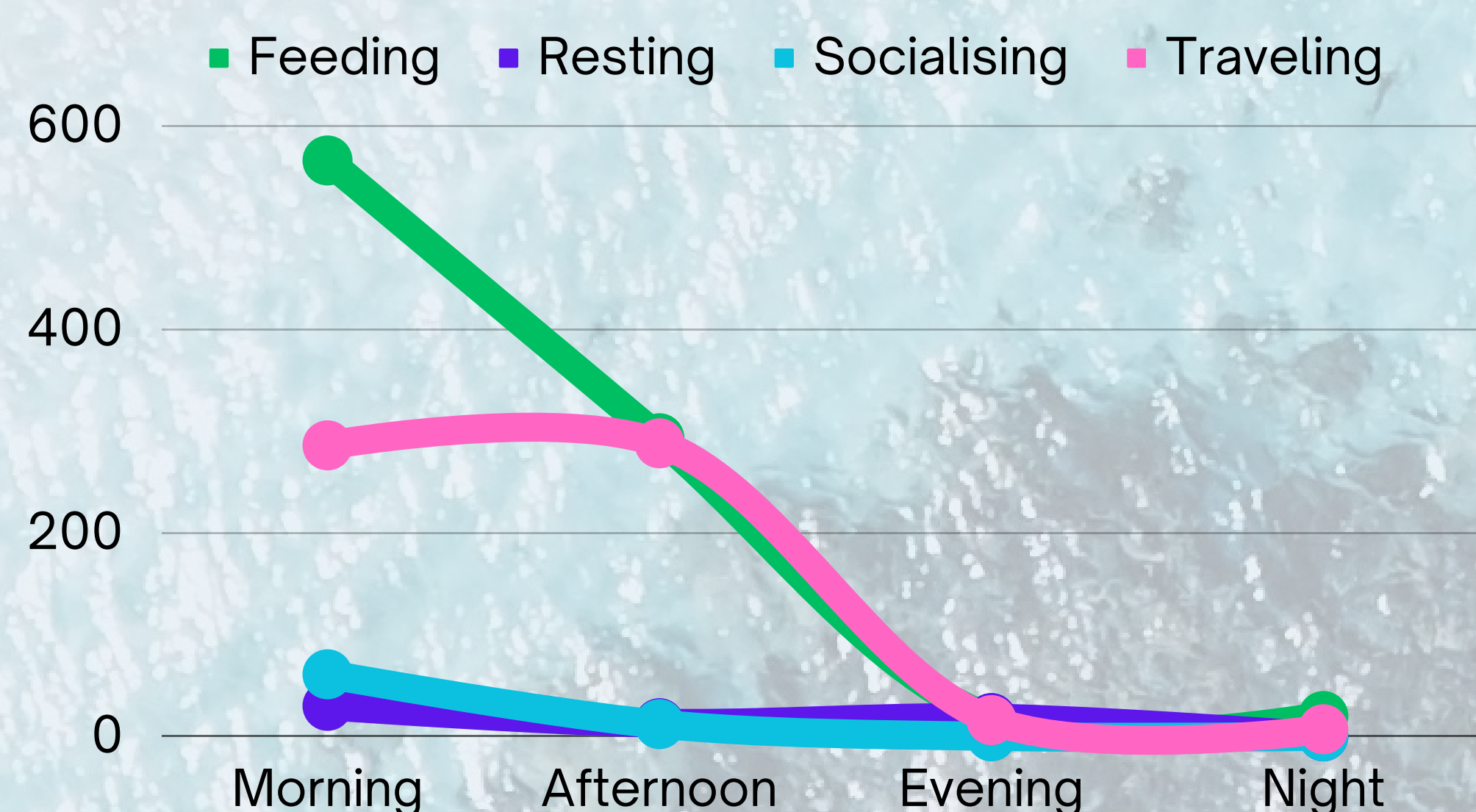
The aim of the present study was to understand and determine the behavior and natural circadian rhythms of wild Bottlenose dolphins (*Tursiops truncatus*) during the different phases of a day; morning, afternoon, evening and night at the Galician coast, inside and outside the Ria de Arousa



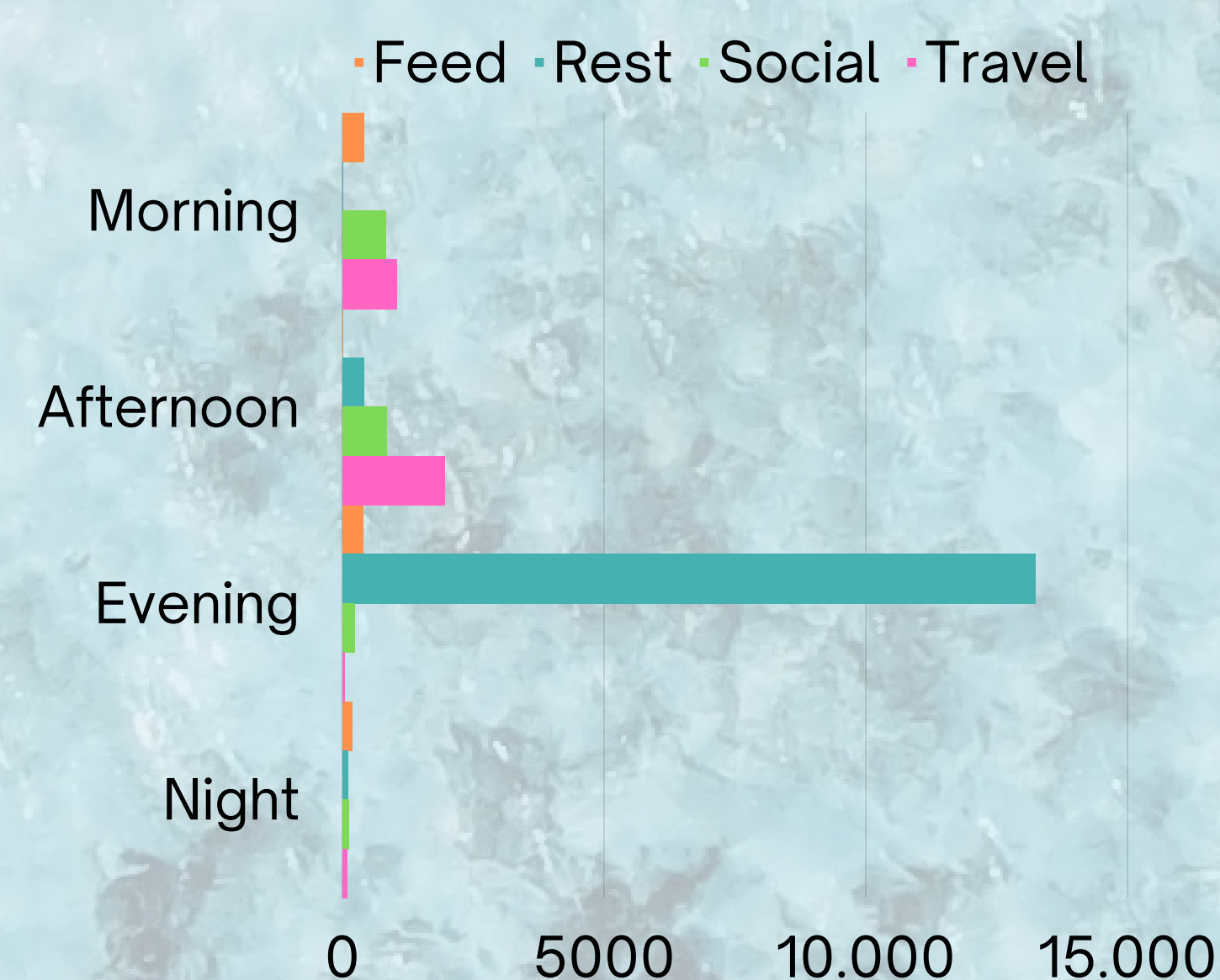
METHODS

Behavioral observations were carried out from February to October 2021 during daylight hours in the Ría de Arousa and surrounding waters onboard BDRI research vessels. Two variables were used in the analysis and a table of contingency was created with: the moment of the day (morning, afternoon, evening and night) and the Predominant Activity of the group of dolphins (Feeding, Resting, Socializing and Traveling).

Behaviour of dolphins during the day



Chi-squared for each variable



RESULTS

There is an existence of dependence between the moment of the day and behaviour of dolphins. Results show that bottlenose dolphins were mainly observed travelling in the afternoon and resting during the evening.



DISCUSSION

This study provides additional information on behavioral circadian rhythms bottlenose dolphins in NW Spain. Bottlenose dolphins have different behaviour during the different phases of the day. The results highlight the importance of the dependent relation between the moment of the day and the predominant activity of the bottlenose dolphin. The determination of the existence of circadian and seasonal rhythms is important for advancing the knowledge of the biological aspects of species for their protection and conservation.

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