BEHAVIOURAL ASPECTS OF *SOTALIA GUIANENSIS* GROUPS IN ILHA GRANDE BAY (RJ, BRAZIL).

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INTRODUCTION

align="justify">Time allocation is a tool which provides data about different kinds of interactions. That's why it's widely used in comparative studies (Gross, 1984). *Sotalia guianensis*, also known as the estuarine dolphin, is a small delphinid that inhabits productive areas, such as estuaries and bays (Wedekin *et al.*, 004). It is found in coastal waters from Southern Brazil (27º 35'S, 48º 35'W) (Simões - Lopes 1988) to Northern Honduras Caribe (15º 58'N, 79º 54'W) (Car & Bonde 2000). Considered as "*data deficient*" by the IUCN (2004), this species is poorly known along its distribution, specially the Ilha Grande Bay population.

OBJECTIVES

align="justify">Characterize the differences between the groups containing calves and the ones formed only by adults in Ilha Grande Bay, Brazil.

MATERIAL AND METHODS

align="justify">Ilha Grande Bay, (23º10' S 44º41' W to 23º02' S 44º 26' W) is located at southeastern Brazil and, together with Sepetiba Bay, is a large estuarine system. With its oceanographic, rainfall and hydrologic conditions, this Bay is an area of great environmental interest, comprising one of the Brazilian systems with greatest primary productivity (Nogara, 2000). Despite being poorly studied, this bay harbours the largest aggregation of *Sotalia guianensis* individuals ever seen (Lodi & Hetzel, 1998). From May 2007 to March 2008, 24 boat trips were conducted to collect behavioral data using the focal group and the all animals occurrence methods. The behavioral states were defined as follows: Feeding-frequent and asynchronous dives, in varying directions, in one location, with an evident lack of directional movement (Karczmarski *et al.*, 999). Travelling-persistent, directional movements, with all members of the group diving and surfacing synchronously (Karczmarski *et al.*, 999). Socializing-in this behavior, the animals remained at the same area without traveling and interacting with each other (Slooten, 1994). A group was considered as such when individuals were seen less than 10m apart from each other in a chain rule manner (Smolker, 1992). Groups were recorded by using a digital video camera. In order to achieve the main objective of this work, it was quantified the size and behavior of the groups. Descriptive statistics were used to quantify the group size and relative frequencies were used to quantify behavioural states.

RESULTS AND DISCUSSION

align="justify">In 62,8% of the time the groups containing calves were feeding, 35,6% travelling and 1,6% socializing. The modal size of these groups was of 10 animals. Adult groups spent 49,8% of their time feeding, 12,8% travelling and 37,4% socializing. The modal size of these groups was of 6 animals. The poor physiology of the calf (Noren *et al.*, 008) allied with the high energetic demand of the lactating mother (Meynier *et al.*, 008) can be a possible explanation to the higher time allocation in feeding and a larger group size. This would enhance the prey capture success and be an ideal opportunity for horizontal learning, since the calves would be in direct contact to the great variety of the feeding tactics. Plus, larger group sizes would decrease the predation risk. For adult groups, females are a scarce resource; therefore it would not favor larger groups, since competition would be stronger. A greater time spent socializaing may maximize their reproductive success.

CONCLUSION

align="justify">Mother/calf groups spent more time feeding and form larger groups in order to enhance the prey capture success and defend against predators. Adult groups spent more time feeding and socializing. A higher frequency of this last behavioral state enhances the reproductive success of males.

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