



Study about the potential impact of whale watching in the Strait of Gibraltar on the behaviour of “long-finned pilot whale” (*Globicephala melas*)

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Figure 1. A litter long-finned pilot whale

INTRODUCTION

The beginning of the whale watching goes back 1955, in The United States. But it was in the decade of the 90 when one started developing this activity in the Strait of Gibraltar, where it is possible to observe up to seven different species of cetaceans along the year. The species most frequently sighted is the long-finned pilot whale. The aim of this study is to analyze the impacts of whale watching on this species.

MATERIALS & METHODS

The period of this study was from 2003 to 2009 between april to october, (including both months). The cetacean sighting was performed from two opportunistic platforms.(Figure 2) in the Strait of Gibraltar and following the protocols of the S.E.C.



Figure 2. Commercial vessels from which to perform data collection.

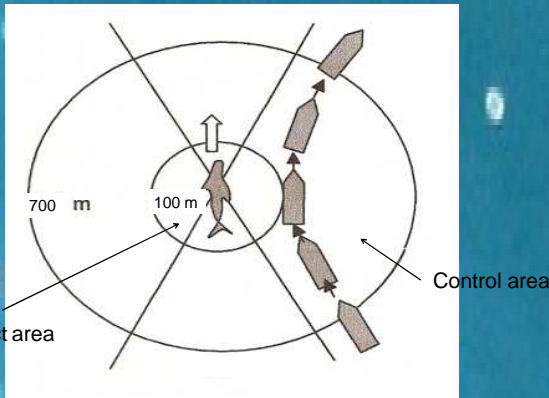


Figure 3. Way to approach cetaceans under Annex I of Royal Decree 1727/2007

To carry out the study two areas were established: a control area (from 700 to 100 m) and an impact area (less than 100 m), in which, we compared statistically different variables such as activity, group size, group cohesion and presence/ absence of calf, among others, (Figure 3)

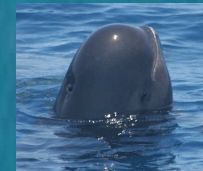


Figure 4. Long-finned pilot whale

RESULTS & DISCUSSION

48.091 kilometres were travelled with an effort of 2.882 hours at sea, and 506 data referring to pilot whales recorded. The activities most frequently sighted were navigation (58%), and resting (23%), (Figure 3). We can observe that navigation and resting activity is higher in the control area than in the impact area. This reflects the change of activity in the presence of whale watching boats.

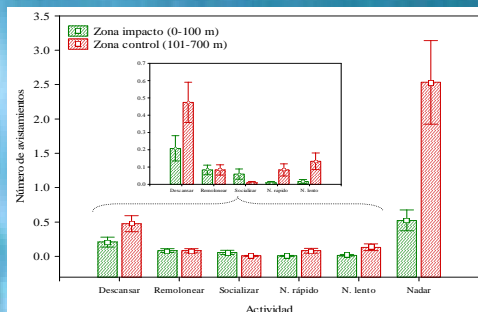


Figure 3. Average number of sightings in the categories of Pilot whale’s behavior considered.

The size groups that predominate in the impact area are from 0 to 20 individuals (59%) and 21 to 90 individuals (40%), being the 91 individuals over scarce. The approach behavior is more common in large groups, while the response of indifference appears in small groups (Figure 4.)

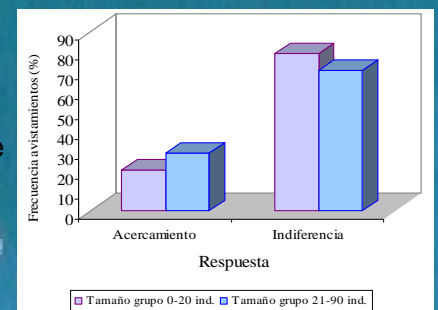


Figure 4. Frequency of sightings of Pilot Whale groups as the main group sizes and types of behavior considered response.

CONCLUSION

We can not say that the whale watching companies are causing a negative impact on the behavior of pilot whale in the Strait of Gibraltar, but should be regulated their activity and more caution is required from the whale watching boats when approaching groups of pilot whales, especially when they are browsing or resting.

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