

SPATIAL AND TEMPORAL DISTRIBUTION, AND ABUNDANCE OF SPERM WHALES (*PHYSETER MACROCEPHALUS*) RELATED TO COLLISIONS WITH THE MARITIME TRAFFIC IN THE STRAIT OF GIBRALTAR BETWEEN 1998 AND 2005

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In 2005 the Ministry of Environment of Spain financed a study whose aim was to analyse the risk of collisions between cetaceans and the maritime traffic. In this presentation the risk of collisions between Sperm whales and the maritime traffic is analysed. A total of 22 648 km of effort from the research boat Elsa, 348 sightings of Sperm whales, and 548 pictures of flukes were used to analyse the spatial distribution (using GAMs), the temporal distribution (using the Encounter rate per month), and the abundance (thru photo-identification). A total of 21 sperm whales are distributed between the month of March and August with a peak in May in the southern part of the deepest areas of the Strait. The maritime traffic was also analysed, giving a total of 91009 ferries and cargos crossing the area every year. A total of 13 whale watching boats are also working in the Strait between March and November. This data suggest that there is a potential risk of collisions between the species and the maritime traffic. A total of almost two collisions were recorded between 2001 and 2005, one of them been seen directly by CIRCE in September 2002. Morocco is building a new harbour in the Strait, just in front of the main area for sperm whales, and will start to work ending 2007. This new harbour will change all the ferry and fast ferry lanes in the area, and these lanes will directly cross the main area of distribution of the specie studied in this work. This data shows clearly that the population of sperm whales has a real treat in the Strait of Gibraltar, and if no mitigation measures are taken into account in the area its survival rate could decrease dramatically.