



PRELIMINARY RESULTS OF THE FIRST CENSUS OF SPERM WHALE (*Physeter macrocephalus*) IN THE CANARY ARCHIPELAGO

INTRODUCTION

The limited information existing about the sperm whale (*Physeter macrocephalus*) in the Canary Islands, located in the lower North Atlantic, contrasts with other mid-Atlantic archipelagos, such as Azores or Madeira. According to the last years Society for the Study of Cetaceans in the Canary Archipelago (SECAC)'s surveys (non published data), the Canary Islands is a strategic area for the sperms whales. This species has been recorded all year around, however, very little is known about the distribution, seasonality, abundance and habitat use of the species in the canarian waters. Even when the status of conservation remains unknown, and assuming that the sperm whales spend at or near the surface around the 30% of their lives (Whitehead *et al.*, 1992; Watkins *et al.*, 1981, 1984; Joyce *et al.*, 1990) the collisions could be a potential threat for the conservation of the species in this area. The preliminary results on the frequency and distribution of this species in the Canary Islands are presented. The results of this project will provide rigorous scientific information about the ecology, distribution, conservation status and threats of the sperms in the area.

METHODS

From November 2008 to October 2009, the SECAC carried out a census of sperm whale in the eastern islands of this archipelago as part of a long-term project that includes photo-ID, diet, acoustics, genetics and habitat use. 703,5 hours and 3.310 nautical miles were inverted at sea, surveying the area by acoustic and visual census. For the acoustic survey a four-element hydrophone array, with 2 medium frequency elements (Benthos AQ4) was used to detect the presence of sperms whales. The software Rainbow Click and Logger from IFAW and Panguard were used to localize and follow the animals. The visual census consisted on zig-zag random transects from shore to 20nmi offshore. The SECAC and IUSA's (ULPGC University) stranding databases of the last 25 years were also analyzed to detect possible threats.

RESULTS

25 encounters with groups of sperm whales were recorded during these surveys. To date, 80 animals have been photo-identified, with recaptures of specimens of the same group in consecutives days in April and May of 2009. Most of them were groups composed by adult females with juveniles and calves. 4 adult males were also sighted. A total number of 985 acoustic stations (1 minutes stops every 15 minutes) were made, detecting the presence of sperms whales' regular clicks in 175 of them (17,77 %). The acoustic detection of a solitary adult male permitted the recording of a 73 minute dive, one of the longest registered for this species. Stranding data show that around the 40'9% of the stranded sperms whales in the Canary Islands showed evidences of ship collisions (sectioned body portions, clean slashes, etc).

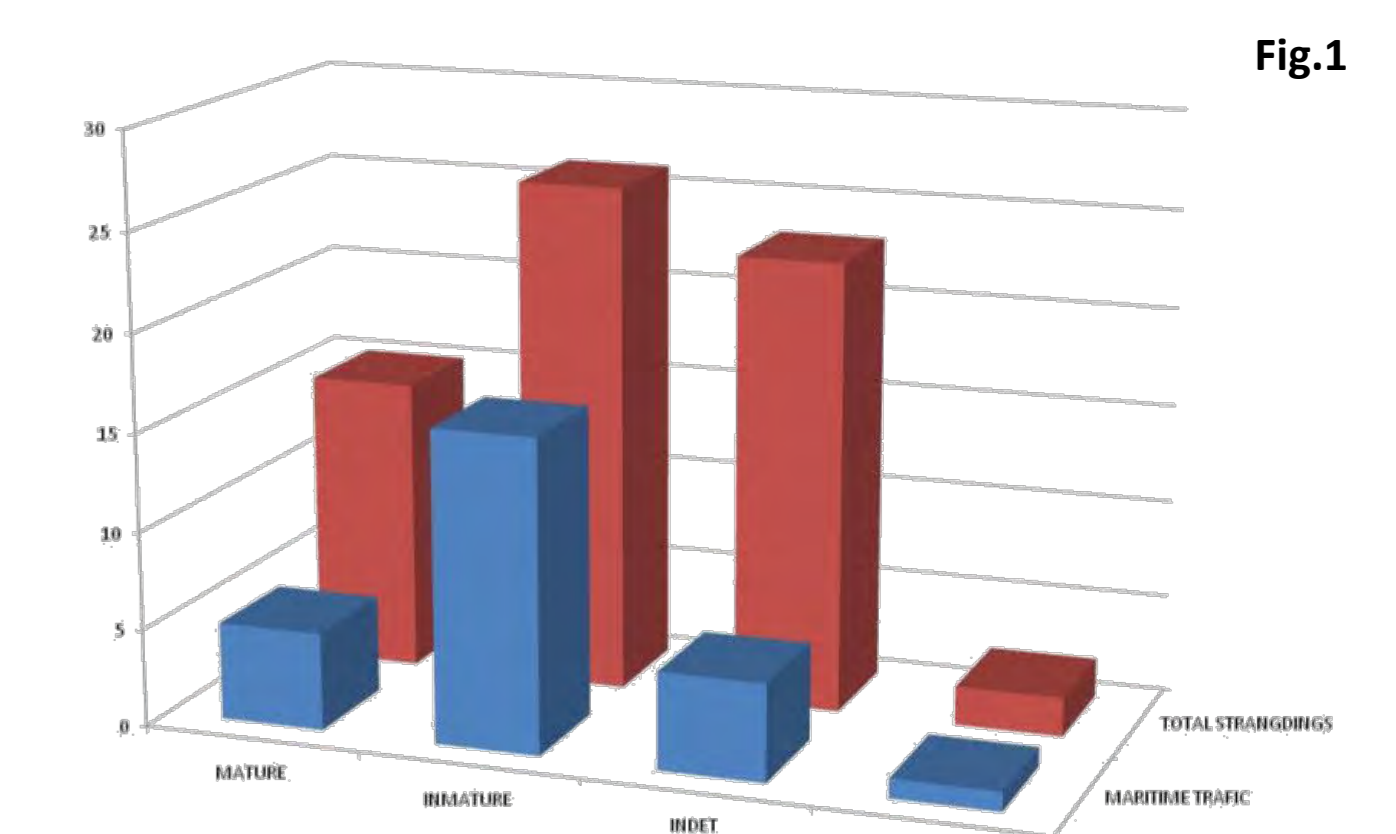


Figure 1 show in red the total strandings and in blue only the animals that showed evidences of ship collisions by age classes.

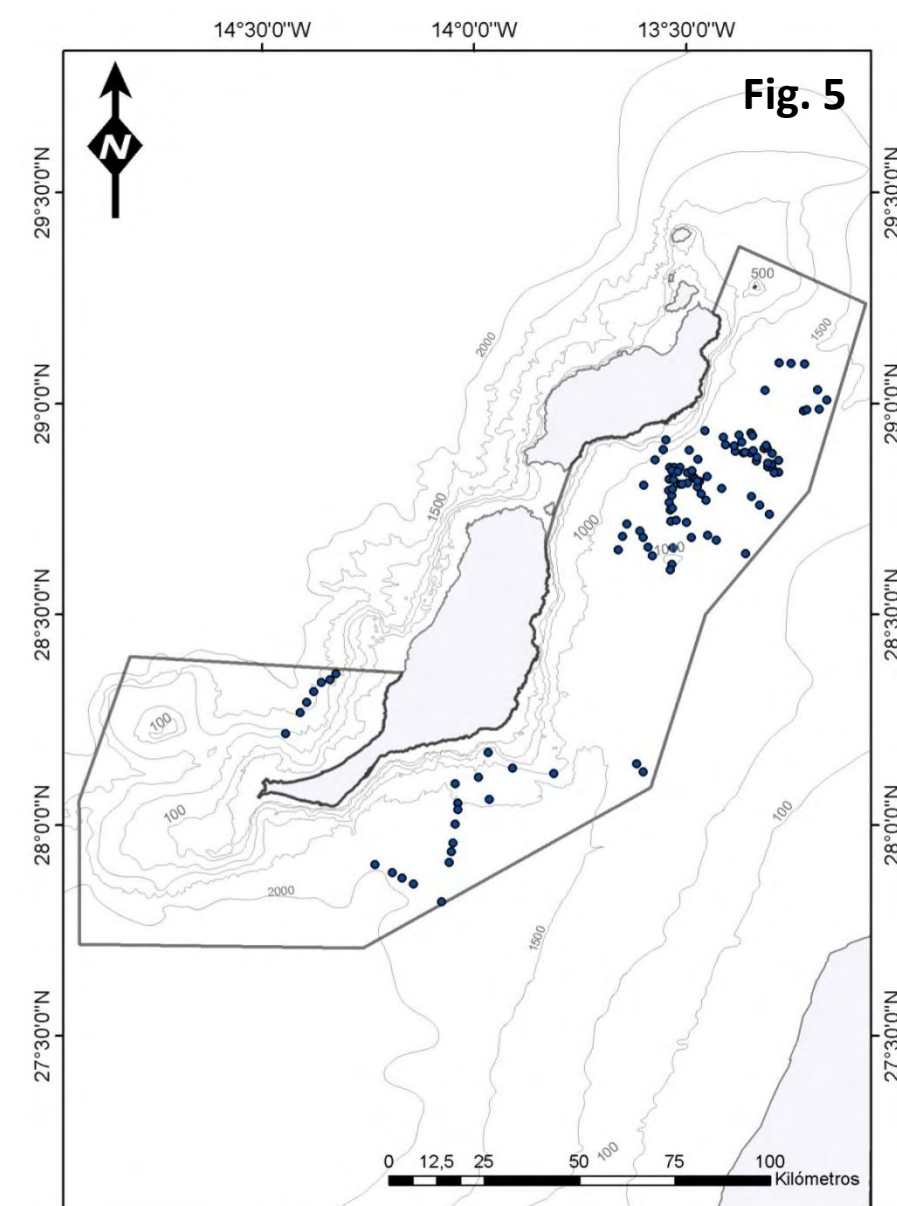
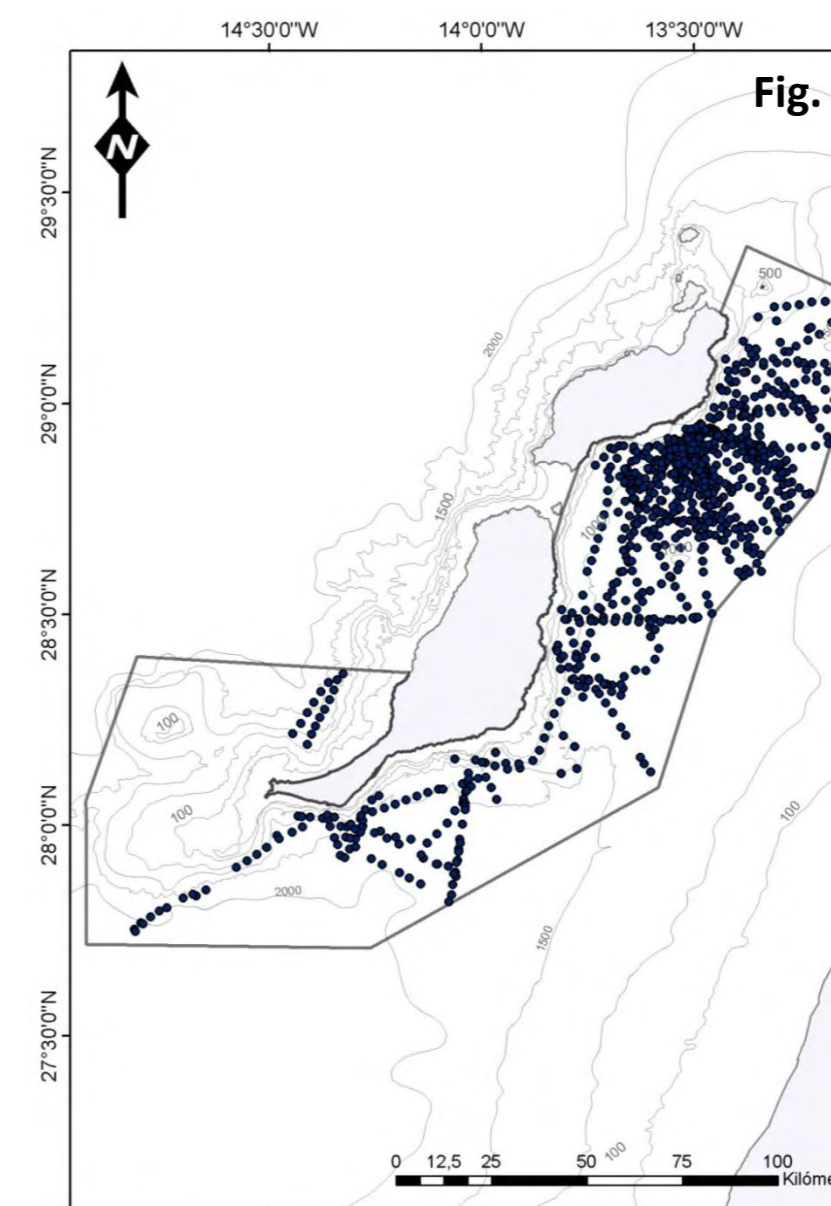
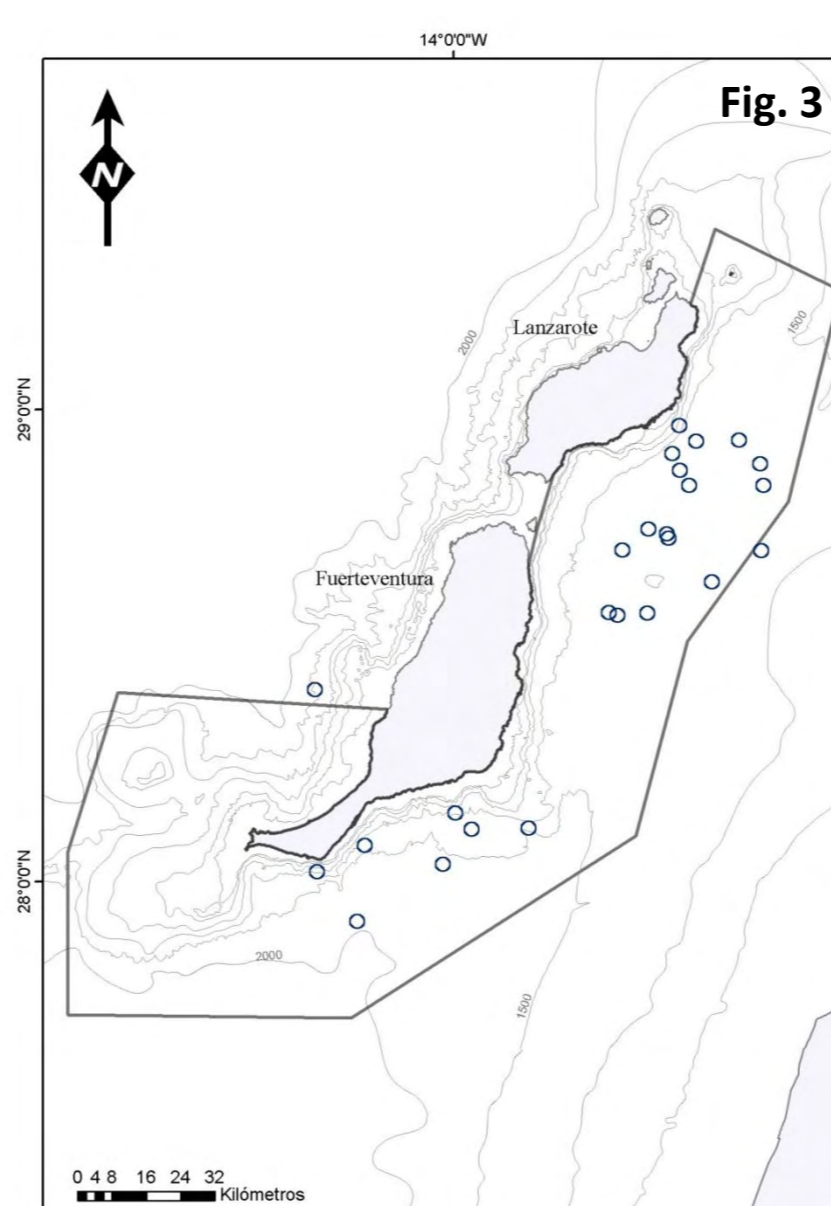
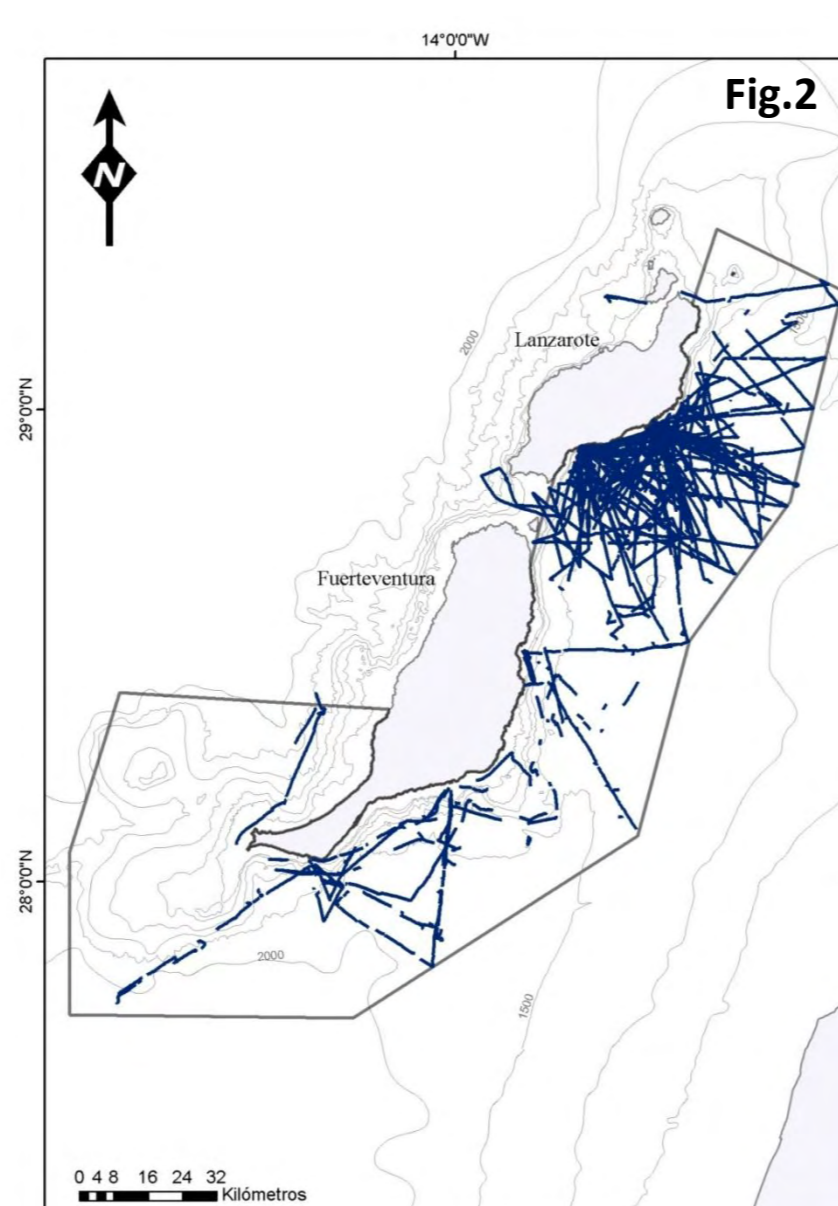


Figure 2 shows the dedicated effort in the period considered. The Figure 3 shows the sightings of sperms whale in the area. The Figure 4 shows the acoustic stations carried out during the surveys, and the Figure 5 shows the acoustic stations where sperms whales were detected.

DISCUSSION

The preliminary results showed that this species has a regular presence in the study area as well as deep divers like beaked whales (Fam. *Ziphiidae*), pigmy and dwarf sperm whale (Fam. *Kogiidae*) and short-finned pilot whale and Risso's dolphin (Fam. *Delphinidae*). Probably this is an important feeding area, as reveal the important mesopelagic layer composed by potential preys of these species, detected by recent eco-sound studies. This area has been affected historically by typical beaked whales mass strandings. The long 73 minutes dive recorded, is unusual in the Mediterranean Sea (Frantzis, pers com), which could suggest behaving differences in between different geographical populations. One of the main threats of this species in the area is the collision with high speed vessels. Further study on this species in the area, with a special attention of its habitat use and the potential anthropogenic threats seems to be a priority for sperm whales conservation in the Canary Islands.

ACKNOWLEDGMENTS

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