P.1 Transborder cetacean monitoring using ferries as platforms of observation between Tunisia and Italy: autumn-winter results of an ACCOBAMS co-funded project

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The region between Sicily and Tunisia is believed to be one of the potential wintering grounds for fin whale and is also considered a critical habitat for cetacean species due to several important anthropogenic pressures. In order to start a systematic cetacean monitoring of the area, a partnership of Tunisian and Italian research bodies, within the international network that monitors cetacean using ferries as platforms of observation, participated with success to the ACCOBAMS 2012 open call for “Monitoring, research, training and projects relating to the conservation of Cetaceans”.

Fixed line transects are routes set in advance, which can be repeatedly surveyed, using any vessel that regularly travels along the same route. The use of ferries as observation platforms for dedicated surveys was firstly applied in the early 1990s along a fixed transect in Tyrrhenian Sea and, from 2007, along a network of fixed routes in the Mediterranean Sea. The method is particularly useful to monitor systematically long-term changes in cetacean occurrence through different habitat types, including open sea regions, reducing bias due to spatial heterogeneity or to small sample size. At least two dedicated Marine Mammal Observers are located on ships’ command deck, conducting observational scans by naked eye and binoculars (7 × 50), covering a 270° arc head of the ferry. Observations are carried out at sea state of Beaufort ≤ 3 and information regarding the route, speed and meteor condition are recorded at the beginning and at the end of the effort and each time a change occurred. During sightings, information about time, ship's position, radial angle to the sighting, surface behaviour, direction of swim, distance from the ship and group size of the species are also recorded. Vessel position tracking is recorded automatically and continuously by a GPS handheld receiver. In this project two ferry companies, Grimaldi Lines and CTN Ferries, were involved in the project. During the monitoring also marine litter and other megafauna species were recorded within a fix width strip. In order to assess relationship between sightings and maritime traffic, map of cetacean sightings was overlaid with map of maritime traffic densities (AIS) taken from MarineTrafic. A second phase of the project is planned to cover the spring and summer seasons of 2014.

Main results, from the winter monitoring, are the scarce presence of cetacean in the area (ER= 0.8 sightings/100km ± 0.20), especially when compared, for the same period, to the other transect of the network just north (between Civitavecchia and Barcelona) (ER= 0.16± 0.18) and the fact that sightings are in areas with low maritime traffic. Encouraging is the high number of trained university students involved in the project. Results are also made available through a blog http://itucre.blogspot.it/.

Collected data will allow to: assess cetacean presence and distribution in the surveyed region (sighting are shared on OBIS Sea Map), investigate fin whale migration patterns and contribute to the assessment of quantity of events of collision risks.

Networking with the other partners that use the same monitoring protocol is an important added value that will allow a synoptic view of cetacean in the Western Mediterranean Sea Region. At date, more than 20 organizations (universities, research bodies, NGOs, 4 ferry companies) are directly involved in the network. 1700 NM of transborder sampling transects are regularly monitored (41% year-round, 59% June-Sept.; 2-8 surveys/month), using ferries as platform of observation. Dedicated observers systematically collect data on Cetaceans, Marine birds, Sea turtles, Jellyfish, marine traffic and marine litter. three protocols were established for consistent data collection

Overall, the project goal is also to enact policies, between Tunisia and Italy, so to strengthen the cooperation and dialogue

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