Cetacean diversity across the Mediterranean Sea: first results from a new fixed-line transect from Tyrrhenian to Balearic Seas

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Cetacean occurrence and distribution have been investigated in the central-western Mediterranean Sea since 2007, using ferries as observation platforms along fixed-line transects. Nowadays, regular monitoring allows homogeneous and synoptic large scale data collection along 7 inter-regional ferry routes joining the ISPRA network. In summer 2012 a new route between Civitavecchia (Italy) and Barcelona (Spain) was monitored, following the protocol already used in the rest of the network. The transect ran across two basins: the central Tyrrhenian Sea, which is studied since the 90’s using the same methodology, and the Western Mediterranean Sea from Bonifacio Strait to Catalonia, where a new insight about cetaceans diversity is given by this research. From June to September 9.033 Km were travelled in 24 line-transects (197 hours on effort in standard conditions), and 199 sightings of almost 1.060 animals were recorded. The most abundant species were \textit{B.physalis} and \textit{S.coeruleolba}, showing highest encounter rates in June (\(ER_e = \) sightings per hour on effort = 0.35±0.047; \(ER_{sp} = 0.81±0.23\)); \textit{P.macrocephalus} and \textit{Z.cavirostris} were also detected in both basins with lower Encounter Rates (\(ER_{pm} = 0.034±0.016\); \(ER_{zp} = 0.034±0.018\)); \textit{G.griseus} and \textit{T.truncatus} occurred in few occasions only. Information about animals’ distribution in open sea, where other methods are difficult to apply, is provided by this study. Cetaceans sightings seemed quite continuous along the transect, even if an area of scarce presence was recognized in the middle of the Western basin, in correspondence with the Balearic abyssal plain. Special interest is focused on fin whale pattern of distribution, in relation to results coming out from the all monitoring network and to some ecological parameters (SST, Chl). The surveys will be carried out yearly round during the next months in order to enhance the understanding of fin whale movements in the whole Mediterranean basin.
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ABSTRACT BOOK

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