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ABSTRACT BOOK





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Anthropogenic impacts on cetacean populations in the Strait of Sicily

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Several anthropogenic pressures affect the cetaceans inhabiting the Mediterranean Sea. Heavy naval traffic mainly produces underwater noise and causes collisions with large cetaceans; excessive fishing activities reduce fish resources and increase indirect by-catch; and marine litter can mostly cause entanglement and ingestion. To evaluate the effects of these anthropic factors on cetaceans, several surveys were carried out by the Marecamp Association for more than a year, February 2022 – March 2023, along two fixed routes: Catania-Malta and Porto Empedocle-Lampedusa. On board passenger ferries and cargo ships used as observation platforms of opportunity, in the framework of the Fixed Line Transect Mediterranean Monitoring Network (FLT Med Net), data about the presence of different species of cetaceans and anthropogenic activities were collected. Large commercial vessels and recreational boats were considered for maritime traffic, while fishing boats and fishing devices were counted as fishing activities. Material, sector of use and size data were recorded for floating marine litter. The results show that cetaceans avoid heavily trafficked areas, especially the transit areas of large commercial ships along the Strait of Sicily. This is particularly evident in the Catania-Malta route, where the largest number of cargo ships was recorded, and only rare cetacean sightings were registered in these areas. The greatest cetacean presence occurred along the Sicilian coasts, corresponding with an area with heightened fishing activity. Near Lampedusa Island, most sightings overlap areas with a higher density of marine litter, fishing activities, and ship traffic, represented particularly by recreational boats. This research shows the significant presence of anthropogenic pressures on marine mammals in the study area and how differently they respond to them, offering new thoughts for the implementation of strategies suited for inshore and offshore marine environments.