Differential space distribution of the genus Balaenoptera in the eastern tropical Atlantic Ocean

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The main aim of this study was to improve knowledge regarding the spatial distribution of cetaceans (Balaenoptera spp.) using opportunistic sightings from purse seiners targeting tuna in tropical areas of the Atlantic Ocean (Atlantic, Eastern Central, FAO major fishing area 34) between January 2003 and December 2016. Each sighting datum collected by observers on board fishing vessels targeting tropical tuna was identified at the lowest possible taxonomic level. These data were analyzed using General Linear Models (GLMs) to determine the environmental variables that favor the preferential habitats of Balaenoptera spp. compared to those of other cetacean species. It was found that the sea surface temperature and sea-current velocity-component are factors that explain the differential spatial distribution of Balaenoptera spp. Thus, the probability of observing Balaenoptera spp. specimens in coastal areas is higher when temperatures are low and currents are slow. © 2020 Elsevier B.V.

Cetaceans

Differential habitat

Rorquals

Tropical areas