

Understanding pelagic stingray (*Pteroplatytrygon violacea*) by-catch by Spanish longliners in the Mediterranean Sea

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The pelagic stingray *Pteroplatytrygon violacea* is known to be a frequent by-catch in longline fisheries worldwide. This study analysed the eco-geographic, technical and temporal parameters that affect pelagic stingray by-catch by the Spanish surface drifting longline fleet that operates in the Mediterranean Sea. Between 2000 and 2013, 3007 longline fishing operations were monitored. Over this period, we recorded 57 574 pelagic stingray by-catches by this fleet. Two gear types were involved in 96.05% of the pelagic stingray by-catch observed: traditional surface longliners targeting swordfish (LLHB) and surface drifting longliners targeting albacore (LLALB). We obtained two statistically significant explanatory models for the two types of gear. In both cases, two of the most important variables were fisheries being sited over the continental shelf and fishing during the summer season. The LLHB explanatory model included the following variables: number of hooks, latitude where setting started, distance between the ends of the longline, and the spring season. Regarding the LLALB, we found an association between the Capture per Unit Effort of pelagic stingray from favourable sets per year and the North Atlantic Oscillation in the previous year. © Marine Biological Association of the United Kingdom 2015.

By-catch

longline

pelagic stingray

Pteroplatytrygon violacea

bycatch

catch per unit effort

continental shelf

longlining

North Atlantic Oscillation

pelagic fish

seasonal variation

Atlantic Ocean

Atlantic Ocean (North)

Mediterranean Sea

Pteroplatytrygon violacea

Thunnus alalunga

Xiphias gladius