

Using GIS to localize the fishing activity of small vessels targeting European hake in the Adriatic sea as a basis for spatial management

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The Common Fisheries Policy (CFP) has introduced new requirements for the exploitation of living marine biological resources and the principal aim is to achieve Maximum Sustainable Yield (MSY) for all stocks by 2020. This objective is more effectively achieved through multiannual plans for fisheries management, reflecting the specificities of different fisheries. The Adriatic sea is one of the sub-regional unit for the management of the fishery resources in the Mediterranean. In this area European hake is one of the most important demersal resources, shared among three European and two cooperating countries, and subjected to overexploitation since long time. The stock is mainly exploited by trawlers, though the adult fraction is the target of small scale vessels mainly using bottom long-lines. In the design of multiannual plans management measures are a key point, since different options can be proposed, from the usual ones (e.g. reduction of capacity and activity) to more specific alternatives as the seasonal and spatial based management. Such options demand information on the spatial fleet dynamics that can be inferred using VMS data for larger vessels (>15 m LOA), but require other source of data for the small ones. Thus, complementary sampling to the DCF (Data Collection Framework), by means of interviews, logbooks and embarks has been conducted in the south Adriatic onboard small vessels using bottom long-lines to locate fishing grounds and compile fishing calendars. Mapping has been achieved using GIS and integrating fishery dependent information with those from scientific trawl surveys in the area.

Keywords: multiannual management plans, European hake, Adriatic sea, gear interaction, GIS

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