Mapping Important Areas for the UK and non-UK 12-metre and over Fishing Fleets, Phase 3 [MMO1467]

Aim

To update and improve the MMO important areas for fishing activity with most recent data and additional analysis, for the UK 12-metre and over (12m+) fleet and the non-UK 12m+ fleets.
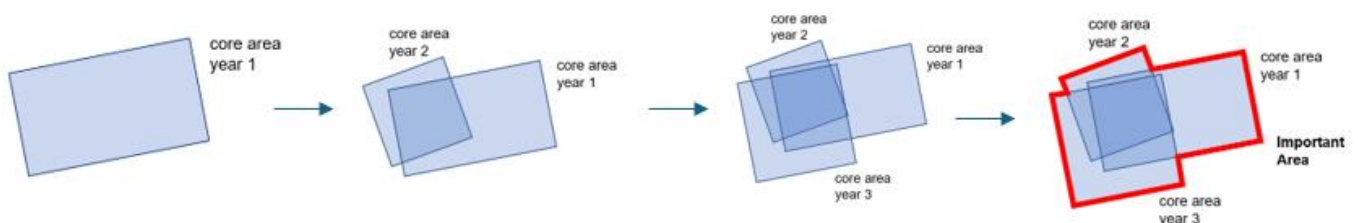
Introduction and methodology

In 2022, following the publication of the British Energy Security Strategy, the Department for Environment, Food and Rural Affairs (Defra) commissioned the Marine Management Organisation (MMO) to model areas for future offshore wind and map important areas for current fisheries in English waters. This commission created initial maps of fishing activity for UK 12m+, UK under 12-metre and non-UK 12+ fleets, for the period 2016-2021. Alongside these maps a technical report (unpublished) was produced which contained recommendations for future work. Maps were subsequently engaged on with the fishing industry in summer of 2023.

This study was the continuation of the fisheries activity mapping work, and aimed to further develop understanding of the areas used by and important to the fishing industry, and implement recommendations from the inital mapping and subsequent industry engagement.

A range of fishing activity metrics (fishing effort (hours and kilowatt hours), weight, and value of landings) were used to describe the distribution and intensity of fishing activity, which was subsequently mapped across the study area consisting of English, Welsh and NI Marine Areas.

Core fishing areas were defined, as the footprint of the top 80% of cumulative fishing in each year. "Important" areas were then developed and were the total footprint of all core areas in one or more years. Analysis then explored the location and size of important areas and how important areas differed among different gear and species groupings.

Results

Analysis indicated that while fishing activity was widespread throughout the study period, present in more than 80% of the study area, activity is concentrated and consists of smaller, intensively fished areas, and larger, infrequently fished margins.

There was variation in how clearly important areas could be identified by gear and species, with certain groupings showing well defined important areas while other areas were more dispersed. Many important areas were transboundary spanning fishing administrations within the UK Exclusive Economic Zone (EEZ) or extending into neighbouring states' waters
Analysis was also run to identify the areas of the sea from which most ports received landings, with up to 24 different ports landing fish from western Scotland and north east England. Examination of the areas where individual ports received landings from, further highlighted that

while an area may not register as an important area at a national level, they may still be highly valuable at a local community level.

Different metrics for fishing activity identify similar important areas suggesting strong links between effort and landings-based metrics at the scale assessed. However important areas differed strongly among gear groupings, the UK 12m+ fleet and non-UK 12+ fleet, and among target species.

Analysis was also run on gear groupings at a marine plan area scale for the north east marine plan area and south west marine plan area to investigate any significant differences in important areas on a regional versus a national scale. This analysis highlighted that important areas varied when looking at the national scale versus a more regional scale.

Conclusions and recommendations

This report identifies important areas based on criteria and metrics applied, but areas are found to be sensitive to methodology (e.g., temporal and spatial scale, gear resolution). Selecting appropriate methods and criteria is ultimately a societal question related to a vision for fisheries, any objectives sought and what interventions are being considered.

Data remains a limitation, particularly the spatial scale at which it is available. Although not available for this project, data streams like inshore vessel monitoring system (iVMS), Under10 Catch App and reporting from non-UK vessels to the UK as an independent coastal state could improve data quality in the future.

There is potential to develop this work further through additional exploration of the existing data and through processing new useful information which help to build upon our understanding of fishing activity around the UK. Possible future development of the work, which could be addressed in future phases of mapping, include validating the data through further engagement, mapping activity against stock and quota changes and further exploration of important areas at a more local scale.

MMO comments

This work focuses on the UK and non-UK 12m+ fleets only. Separate analysis was completed on the UK under 12-metre fleets in 2022 which has not been updated as currently data does not facilitate further analysis.

This work should be used with a full consideration of all the caveats associated with the data, as described in the main reports.

Further information

Please direct any correspondence to the Marine Planning Team (planning@marinemanagement.org.uk). Further information and all the data layers produced as part of the project can be found on the MMO's digital planning service, Explore Marine Plans