Marine Management Organisation

Modelling marine recreation potential in England report note (1064)

Aim

To develop a computer model to map areas of marine recreation potential in English waters, to support current knowledge and the existing evidence database on marine recreation activity locations to inform the marine planning process.

Introduction

This project was a short-term study to develop a spatial model to map areas of marine recreation potential.

This builds on previous recreation projects, which focused on gathering spatial evidence of marine recreation at the national, East and South marine plan areas – see MMO1013 and MMO1043.

Previous work highlighted significant gaps in the current knowledge base and confidence of spatial data on where marine recreation occurs. It was considered that a predictive model would fill this gap and allow the recreation sector to be more fully represented in current marine plan development and marine management generally.

In the long term, actual data of suitable quality will be favoured to predicted data.

Methodology

For 12 individual activities ranging from beach activities and wildlife watching, to jet, skiing, windsurfing, sailing and angling, the model identified user preferences to describe each activity profile.

These were applied to 24 different input data layers, like access, habitats and wind, to control the final prediction 1km grid model.

The user preferences were informed through a series of webinars with stakeholders from national recreation based bodies as well as a workshop at which the results were assessed and validated.

Results

Predictions of vessel based activity were broadly successful with key controls governed by access to infrastructure such as marinas. Slipways and moorings.

The more nearshore beach focused activities such as beach activities and swimming were more sensitive to the input data with critical dependency on a 'land access' parameter formed in the model which categorised ease of access to roads and footpaths. These also require accurate environmental data at high resolutions to provide suitable model outputs, such as wind.

Validation was important to allow stakeholders opportunity to assess their model scores and the suitability of the source data. Feedback from this process aid further model development.

Conclusions and recommendations

The approach and principles of the model are broadly supported by the recreation community.

However, the success of the model relies predominately on the quality, relevance and availability of input data to derive suitable data layers. This ensures the model outputs reflect stakeholder input as accurately as possible.

Improvements in source data must be considered in future iterations of the model and ongoing stakeholder validation and engagement is necessary to ensure the model is suitable for marine planning.

Further information

Please direct any correspondence to the Evidence Team by emailing evidence@marinemanagement.org.uk

The MMO has developed their Strategic Evidence Plan[1] outlining evidence required for the MMO operational functions, including marine planning.

---

[1]

Hwww.marinemanagement.org.uk/about/publications.htm