

Identification of new biotopes project

Summary

The Marine Habitat Classification for Britain and Ireland was originally developed in 1996 using data collected for the Marine Nature Conservation Review (MNCR). These data were predominantly from coastal waters down to 50m depth. The classification was updated in 2004 at which time a number of additional sublittoral sediment biotopes were added based on literature review rather than analysis of survey data. There is still poor coverage of circalittoral rock and sediment habitats occurring in waters deeper than 50 m. Since 2004 JNCC has undertaken numerous offshore surveys in circalittoral waters and it has often not been possible to match data to existing biotopes. The Country Agencies also have new data available from surveys undertaken since 2004. For this project, survey data has been analysed to identify new biotopes to fill in gaps in the classification and update existing biotope descriptions, where necessary. The classification has been analysed in sections in the following order: sublittoral sediment, littoral sediment, circalittoral rock, then littoral and infralittoral rock. We aim to publish revisions to the littoral and sublittoral sediment sections in 2019, with rock updates to follow later.

Work involved

- Run trials and develop an appropriate method for analysis.
- Identify new biotopes from a reanalysis of benthic survey data.
- Assess the validity of existing biotopes and consider revising them.
- Publish new and revised biotopes in the classification, section by section.
- Restructure the classification upper levels.
- Arrange biotopes within the revised classification hierarchy.
- Revise the way biotope information / guidance is provided to the user to enable semi-automatic biotope matching.

Key outcomes

- New biotopes published to fill gaps in the classification.
- A more user friendly classification structure to allow more accurate biotope assignment.
- R script published which shows the method used and allows similar analysis to be easily repeated.

Further information

See jncc.defra.gov.uk/MarineHabitatClassification

Country/region – UK

Beneficiary: JNCC

Period of work: 2014 – present

Collaborators: NE, NRW, SNH, DAERA, AFBNI, Cefas, EA

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A timetable of key tasks is provided below (those completed are shown in green):

- 2015:** Initiate a stakeholder consultation on the scope of classification updates.
Data preparation and trial analysis of data.
- 2016:** Decide final analysis method
Analysis of sublittoral sediment grab data
Analysis of sublittoral sediment video and dive data
- 2017:** Expert review of sublittoral sediment results - match clusters to existing biotopes and identify new biotopes
Analysis of circalittoral rock data
Expert review of circalittoral rock results - match clusters to existing biotopes and identify new biotopes
Analysis of littoral sediment data
Expert review of littoral sediment results - match clusters to existing biotopes and identify new biotopes
- 2019:** Peer review of proposed new and revised littoral and sublittoral sediment biotopes
Publish new and revised littoral and sublittoral sediment biotopes
Review the approach to defining biotopes from photo and video imagery
...Plan for updating littoral and sublittoral rock section coming soon...
Consultation on changing the structure of the upper levels of the classification