



EMODnet



European Marine
Observation and
Data Network

EMODnet Thematic Lot n° 2 - Seabed Habitats

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EMODnet Phase III – Quarterly Progress Report (6)

Reporting Period: 01/07/2018 – 30/09/2018



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1 Highlights during the reporting period

General highlights:

- It has been a quiet quarter with lots of partners taking leave over the summer.
- Our next partner meeting has been scheduled for November 13th-15th hosted by Ifremer in Brest, France. This will be followed by a half day workshop on November 16th for those leading on re-running EUSeaMap on the new processes.
- We will be collaborating with the ICES Working Group on Marine Habitat Mapping to publish a note on confidence in habitat mapping in a peer reviewed journal.

Below are listed specific developments in relation to each of the eight tasks outlined in the tender specification:

Task 1: Develop a common method of access to data held in repositories

No new progress to report.

Task 2: Construct products from one or more data sources that provide users with information about the distribution of parameters in time and space

Preparatory work is continuing in advance of running the updated EUSeaMap at the end of Year 2. Discussions are currently underway with geological (NGU – EMODnet Geology partners) and biological (IMR – EMODnet Biology partners) experts in Norway over thresholds for the habitats in the Barents Sea (new area not previously covered by EUSeaMap). It is worth noting that benthic experts with knowledge in this area do not feel that the EUNIS classification is well developed enough to adequately capture the habitats present on the seabed and EUNIS is never used for habitat mapping within Norway or further north.

Task 3: Develop procedures for machine-to-machine connections to data and data products

Procedures are installed and available. No new progress to report.

Task 4: Develop a web portal allowing users to find, visualise and download data

SSL certificates have been added to both the EMODnet Seabed Habitats website and GeoServer web services to make the web portal fully secure. A survey was recently conducted to gather user feedback on our web mapper and work is now progressing on developing a contract specification for the redevelopment of our web mapper to update it and improve functionality in line with responses received.

Task 5: Ensure the involvement of regional sea conventions

We prepared some slides on EMODnet Seabed Habitats for presentation at the *2nd Meeting of HELCOM Intersessional Network on Benthic Habitats and Biotopes* which was held in Germany in September. JNCC have



highlighted the EMODnet Seabed Habitats survey of the functionality of the web mapping services in a paper being presented to OSPAR representatives at the ICG-POSH meeting (9th-10th October 2018). In discussions with representatives on OSPAR ICG-MPA on whether they currently use EMODnet products within their work and if there is anything that we could be doing to make our portal more useful to them they highlighted that our products would be much more useful to them if they covered the whole OSPAR area. This could be something to consider for the next phase.

Task 6: Facilitate interoperability with data distributed by non-EU organisations

An initial database structure has been generated based off of the data schema devised in previous reporting rounds, in order to hold habitat point data in a Darwin Core compliant manner. The aim is to hold an initial suite of data within this database whilst data links with OBIS are formed. The database has been pre-loaded with UK data for testing and is running successfully and available through the Geoserver web services. Current work underway is to develop an import tool to provide automatic transfer of new data from spreadsheet form into the database, which, once developed, will allow additional European data to be loaded into the database for further system testing.

There are currently **170,705** UK sample records within the database, with the following additional samples awaiting import after the development of the import tool.

Country	Number of samples
Finland	102,950
Portugal	1,538
Romania	126

Work has continued to improve data consistency and European interoperability by implementing Europe's key habitat classification systems within online vocabularies, the OSPAR list of threatened and/or declining habitats and species has been uploaded (<http://vocab.nerc.ac.uk/collection/M22/current/>), and JNCC are liaising with HELCOM contacts to import the widely used HELCOM HUB classification system into an online vocabulary to aid Baltic data collation.

Task 7: Install a process to monitor performance and deal with user feedback

Procedures are up and running. No new progress to report.

Task 8: Operate a help desk offering support to users

Helpdesk is operational. No new progress to report.

2 Challenges encountered during the reporting period

Main challenge	Measures taken
<p>EMODnet Geology layer 1:100k layer will be delivered later than planned</p>	<p>We have just discovered that the EMODnet 1:100k Geology layer will be delivered later than planned. This will leave us short on time to re-run EUSeaMap at 1:100k before the end of the contract on 4th May. We are hopeful that as we have the 1:250k and 1:1M layers available already (which are not being updated) we can start work on EUSeaMap at these scales and then run the 1:100k layer last. If layer delivery is further delayed then we may have to use the old Geology layer from the previous phase.</p>
<p>Mapping habitats in the Barents Sea</p>	<p>The EUNIS classification is not well developed further north in Europe and is not commonly used in habitat mapping in Norwegian waters or further north as the habitats within EUNIS do not accurately reflect the habitats present on the seafloor. We will extend the map to cover this area but it should be noted that unless further work is done to develop the EUNIS classification to better reflect the habitats present in these areas there will be limitations in the quality of the map which we are able to produce.</p>

3 User Feedback

Date	Organisation	Type of user feedback (e.g. technical, case study, etc.)	Response time
12/07/2018	Cefas	Data provision: Where are UK Annex I reef layers available from	30 seconds
20/07/2018	Marine Biological Association	Technical: Suggestion for portal improvement	1 minute
28/07/2018	Member of the public	Technical: Issue with viewing layers	2.5 days (came in over the weekend)
08/2018	Various (18 responses)	Survey response: received 18 responses to an online survey which we established to gather user feedback on our interactive map.	N/A
15/08/2018	Natural England	Technical: Issues with displaying WMS links	1 minute
28/08/2018	Intertek	Technical: Required ESRI symbology layer for EUSeaMap	1 minute
30/08/2018	IVL Swedish Environmental Research Institute	Technical: User contacted the EMODnet central helpdesk after reading a scientific paper and was looking for sediment distribution in the Baltic Sea – We were contacted by EMODnet secretariat and provided link to the Baltic EUSeaMap 2016 map.	1 day
18/09/2018	Latitude GIS	Technical: User requesting information on the organisation to send UK data to for submission to EMODnet Seabed Habitats	1 minute
2018	Orsted	User case: EUSeaMap (version 2016) used in an EIA for a windfarm project: Hornsea Project Three Offshore Wind Farm Environmental Statement: Volume 5, Annex 2.1 - Benthic Ecology Technical Report https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010080/EN010080-000572-HOW03_6.5.2.1_Volume%205%20-%202.1%20-%20Benthic%20Ecology%20Technical%20Report.pdf	N/A
2018	N/A	User case: EMODnet seabed habitats portal is featured in the book "Exploring Britain's hidden world. A natural history of Seabed Habitats." Wild nature Press 2018. It is mentioned in the chapter "Technology takes off" as one of the to go places to find information on habitats distribution in the UK. https://www.nhbs.com/exploring-britains-hidden-world-book	N/A
2018	Comitato Capitale Naturale (Italian natural capital committee)	User case: EUSeaMap (version 2016, Mediterranean) was used in their assessment of the state of natural capital in Italy. Link to paper (page 25)	N/A

4 Meetings held/attended since last report

Table: Meetings organised and attended.

Date	Location	Type event (meeting, training (workshop), etc.)	Attended (A) / Organised (O)	Short description and main results (# participants, agreements made, etc.)
10/09/2018	Skype	Meeting: WP4 – data upload on internal portal	O	Discussion on the best way to upload and make available data collected within WP4 on the seabed habitats portal
13/09/2018	Skype	Meeting: WP2 - Barents Sea	O	Discussions over how to extend EUSeaMap to the Barents Sea
18-19/09/2018	Vaasa, Finland	Seminar: Gulf of Bothnia change	A	Discussed the possibilities of using the EMODnet habitat data in optimisation of windfarm sites
SUM			O	Total # of meetings organised = 2
SUM			A	Total # of meetings attended = 1

5 Outreach and communication activities

Table: Communication activities.

Date	Communication action/material	Short description (of the material, title, ...) and/or link to the activity	Main results (# participants, # views, # press clippings, etc.)
08/18	Online survey	Running an online survey to capture user feedback on our web mapper	18 responses. Generally positive feedback, some areas to think about for development/improvement.
18-21/09/18	Conference attendance	Attended the INSPIRE conference.	Networking and learning opportunity to discuss EMODnet Seabed Habitats.
SUM online survey			1
SUM conference attendance			1

Table: List of known publications using EMODnet data or data products.

Date	Name of journal, conference, ...	Publication title	Authors	Organisation(s)
July 2018	Global Change Biology	Assessing the sensitivity of bivalve populations to global warming using an individual-based modelling approach	Yoann Thomas, Cedric Bacher	Institut Universitaire Européen de la Mer (IUEM), Ifremer
February 2019	Science of the Total Environment	Ecosystem damage from anthropogenic seabed disturbance: A life cycle impact assessment characterisation model	John S Woods, Francesca Verones	Industrial Ecology Programme, Norwegian University of Science and Technology

6 Annex: Other documentation attached

List in Annex if you wish to provide any additional information.

7 New monitoring indicators

Please consult and fill in the designated excel template.