



EMODnet



European Marine
Observation and
Data Network

EMODnet Thematic Lot n° 2 - Seabed Habitats

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Start date of the project: 05/05/2017 - (24 months)

EMODnet Phase III – Quarterly Progress Report (7)

Reporting Period: 01/10/2018-31/12/2018



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1 Highlights during the reporting period

General highlights:

- EMODnet Seabed Habitats had its fourth partner meeting, hosted by Ifremer, in Brest, France from 13th-15th November. At the meeting we reviewed the progress and deliverables and made plans for the required work during the final six months of the current phase.
- The partner meeting was followed by a workshop on 16th November for those partners who are involved in the creation of EUSeaMap to run through the new process that has been created by Ifremer for running the model.
- Lead partner JNCC, attended the EMODnet Steering Committee meeting in Brussels from 19th-20th November alongside the lead partners from all of the other EMODnet Lots.
- Lead partner JNCC, presented on behalf of the whole EMODnet consortium at the EOOS Conference which took place in Brussels from 21st-23rd November. EMODnet Seabed Habitat partners have also presented at other conferences and events throughout the quarter including the IMDIS conference held in Barcelona, Spain from 5th-7th November.

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 for the update to EUSeaMap has been continuing. ISPRA have compiled from Copernicus Marine environment monitoring service (CMEMS) archives new environmental datasets for key variables (e.g. seabottom wave- and current-induced energy in the Macaronesia and Iberian peninsula, seabed density in the Black Sea). In order to find out the best options for developing the EUSeaMap in the Barents Sea, a literature review has been completed by JNCC and a meeting held with Norwegian experts. Ifremer have developed R scripts to automate the production of the broadscale habitat maps. A training course on the use of these scripts was held in Brest in November. IOBAS, GeoEcomar and Ifremer have worked out new thresholds in the Black Sea for the infralittoral/circalittoral and the oxic/suboxic/anoxic areas.

Work has been progressing well on the creation of three composite habitat maps compiled from all of the habitat maps from survey which we have collated to display European distribution of three [GOOS Essential Ocean Variables](#) (seagrass, macroalgae and live coral) as part of EMODnet Biology's Atlas of Marine Life.

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

A contract has been let to redevelop our web mapper to update it and improve functionality in line with responses received from our user survey. This is scheduled to deliver a new web mapper by the end of March which will be fully integrated with the EMODnet Seabed Habitats web portal by the end of Phase 2.

We have also updated the [user cases section](#) of our website to clearly distinguish between user cases from business, policy making and research and academia.

Task 5: Ensure the involvement of regional sea conventions

JNCC have had discussions with the co-chair of OSPAR’s ICG-COBAM on further integration between EMODnet and the work OSPAR are progressing on indicators for MSFD.

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

The initial database to hold habitat point data in a Darwin Core compliant manner and business rules for data import have continued to be optimised as new datasets are loaded into the system (by either accommodating new data formats or rejecting as new cases are encountered). The validation tool developed by ISPRA has been updated with the new rulesets and continues to be optimised and generalised. A data import tool and full data import protocol has been developed at JNCC to allow for efficient ingestion from data provider spreadsheets into the database system, and data has begin to be ingested into the “staging” area of the database, prior to publication. The protocol allows for secondary and final strict validation as a redundancy measure, and final internal user testing (via the staging database) before publication.

The following new data records have now been ingested and are awaiting publication this quarter.

Country	Number of samples
France	9,309
Finland	102,951
Ireland	278
Denmark	81

The following additional points have been submitted and are undergoing QC prior to ingestion into the database system.

Country	Number of samples
Greece	730
Portugal	1302
Romania	126

A draft HELCOM HUB list has been signed off by HELCOM colleagues and JNCC are now working with NERC to import the dictionary into their vocabulary servers. Once readied by NERC, relevant values within the database will be updated accordingly.

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
Nothing to report	

3 User Feedback

Date	Organisation	Type of user feedback (e.g. technical, case study, etc.)	Response time
10/10/2018	Not disclosed	Technical: User contacted the helpdesk for access to products	1 day
18/10/2018	Not disclosed	Technical: User contacted the helpdesk for access to products and a co-ordinate grid to overlay on the interactive mapper	1 day
29/10/2018	Not disclosed	Technical: User wanted assistance downloading EUNIS classification for the UK and import into QGIS	1 minute
02/11/2018	Muséum National d'Histoire Naturelle	Technical: user couldn't access EUSeaMap download in Arc Geodatabase due to missing drivers. Provided a customised Geoserver WFS link to download data by a selected region. Data was used to produce Skate distribution models in NE Atlantic waters.	1 day
09/11/2018	Natural Resources Wales	Technical: user loaded UKSeaMap to their GIS application via WMS links, but some data wasn't showing. Advised it was likely due to the min/max viewing scales applied to the data. This solved the users problem.	45 minutes
16/11/2018	ICES Fisheries Benthic Impact and Trade-offs (WGFBIT)	Technical: wanted information on how the MSFD layers are correlated from EUNIS to provide to members of an ICES working group. Provided relevant information and offered to show case ICES report on user cases when completed.	4 days
22/11/2018	Not disclosed	Technical: User wanted to select data by region	1 minute
22/11/2018	Orbis Ltd	Technical: User wanted to select data by region	1 minute
26/11/2018	MBA	Suggestion: Re-add survey data from Marine Recorder to the EMODnet portal	
29/11/2018	Not disclosed	Technical: User wanted PAR at surface which was not on the map viewer but was available to download	1 minute
13/12/2018	National University of Ireland Galway	Case study: needed information on observed or modelled biotope data from Irish territorial waters. Provided links to available data and relevant metadata (e.g. summaries, technical reports etc.).	21 days
2017	Danish Agriculture and Food Council	User case: EUSeaMap used in a report to estimate and map potential cumulative impacts in Danish marine waters https://www.researchgate.net/publication/319392413_Under_the_surface_A_gradient_study_of_human_impacts_in_Danish_marine_waters	N/A
2017	Norwegian Institute for Water Research	User case: EMODnet model for light (PAR) used in a report on climate adaption, CO2 uptake, and sequestration of carbon in Nordic blue forest https://brage.bibsys.no/xmlui/handle/11250/2478099	N/A
2018	HCMR/MiniEnv	User case: EUSeaMap II used for the updates of the initial assessment of MSFD in Greece (implementation of Article 17 of MSFD) http://www.ypeka.gr/LinkClick.aspx?fileticket=bW4BrJKUMWs%3d&tabid=232&language=el-GR	N/A
2018	SHOM (National	User case: EUSeaMap 2017 used in assessment of MSFD descriptor 7	N/A

	Hydrographic Service, France)	(Hydrographical conditions) in French Mainland waters Tew-Kai, E., Cachera, M., Boutet, M., Cariou, V., Le Corre, F., 2018. Évaluation du descripteur 7 « Conditions hydrographiques » en France métropolitaine. Rapport scientifique pour l'évaluation 2018 au titre de la DCSMM, 747 p. (Not yet available online)	
2018	Department of Housing, Planning and Local Government, Ireland	User case: EUSeaMap 2017 used to assess extent of marine habitats to contribute to national marine planning framework development in Ireland https://www.housing.gov.ie/sites/default/files/publications/files/national_marine_planning_framework_baseline_report.pdf	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.)
01-02/10/2018	Brussels, Belgium	EMODnet Technical Working Group	A	Representing EMODnet Seabed Habitats at the TWG
08-10/10/2018	Oostende, Belgium	EMODnet Biology Products Workshop	A	Discussing the three Essential Ocean Variables which EMODnet Seabed Habitats will be contributing to the Atlas of Marine Life
31/10/2018	Skype	EUSeaMap – Modelling the Barents Sea	O	Meeting between relevant EMODnet Seabed Habitat partners, NGU (EMODnet Geology partners) and IMR (EMODnet Biology partners) to discuss the approach that should be taken to map the seabed habitats in the Barents Sea
13-15/11/2018	Brest, France	EMODnet Seabed Habitats Partner Meeting	O	Discussing the work remaining to complete tasks within this phase of the project
16/11/2018	Brest, France	EUSeaMap workshop	O	Workshop to discuss the new process for running the EUSeaMap model
19-20/11/2018	Brussels, Belgium	EMODnet Steering Committee	A	Representing EMODnet Seabed Habitats at the Steering Committee meeting
SUM			O	Total # of meetings organised = 3
SUM			A	Total # of meetings attended = 3

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.)
10/10/2018	Oral presentation	EUSEaMap overview at the Black Sea 2018 International Conference	
18/10/2018	Oral presentation	Talk on Marine Mapping at an environmental conference in Norway which included information on the EMODnet light (PAR) model, Trondheim, Norway	
05-07/11/2018	Poster presentation	Poster on the EMODnet Seabed Habitats portal at the IMDIS conference, Barcelona, Spain	Approximately 200 participants
09/11/2018	Oral presentation	EMODnet overview at the INFOMAR annual seabed mapping seminar	
21-23/11/2018	Oral presentation	Oral presentation on the creation of EUSEaMap and the collaboration of the EMODnet consortium at the EOOS conference	Approximately 350 participants
03/12/2018	Oral presentation	EMODnet overview given at JNCC/Marine Scotland bilateral meeting	Increased awareness of the EMODnet project and outputs within the Scottish Government
SUM Oral presentations			5
SUM Poster presentations			1

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

Date	Name of journal, conference, ...	Publication title	Authors	Organisation(s)
2016	ICES Journal of Marine Science	Towards a framework for the quantitative assessment of trawling impact on the seabed and benthic ecosystem	A. D. Rijnsdorp F. Bastardie S. G. Bolam L. Buhl-Mortensen O. R. Eigaard K. G. Hamon J. G. Hiddink N. T. Hintzen A. Ivanović A. Kenny P. Laffargue J. R. Nielsen F. G. O'Neill G. J. Piet H. Polet A. Sala C. Smith P. D. van Denderen T. van Kooten M.	IMARES Technical University of Denmark Cefas Institute of Marine Research LEI Wageningen University of Aberdeen

			Zengin	Bangor University Ifremer Marine Scotland Science Institute for Agricultural and Fisheries Research CNR Hellenic Centre for Marine Research Central Fisheries Research Institute
2016	Marine Pollution Bulletin	Reducing spatial variation in environmental assessment of marine benthic fauna	Kjell Leonardsson, Mats Blomqvist, Rutger Rosenberg	Swedish University of Agricultural Sciences Hafok AB Marine Monitoring AB Kristineberg, University of Gothenburg
2017	Science of the Total Environment	Spatially explicit risk approach for multi-hazard assessment and management in marine environment: The case study of the Adriatic Sea	Elisa Furlan, Silvia Torresan, Andrea Critto, Antonio Marcomini	University Ca' Foscari Venice Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici (Fondazione CMCC)
2018	Ambio	Effects of an invasive polychaete on benthic phosphorus cycling at sea basin scale: An ecosystem disservice	Sandman AN, Näslund J, Gren IM, Norling K.	AquaBiota Water Research Department of Economics, Swedish University of Agricultural Economics Swedish Agency for Marine and Water Management
2018	Aquatic Conservation: Marine and Freshwater Ecosystems	Morpho-demographic traits of two maërl-forming algae in beds with different depths and fishing histories	Miguel Cabanellas-Reboredo, Sandra Mallol, Carmen Barberá, Alba Vergés, David Díaz, Raquel Goñi	Instituto Español de Oceanografía, Centro Oceanográfico de Baleares GRMAR, Institut d'Ecologia Aquàtica, Universitat de Girona

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.

The monitoring numbers reported as part of the progress monitoring of EMODnet performance are collected through Matomo. In some cases, numbers from other monitoring systems may also be reported (e.g. Awstats, Google Analytics). Each system uses different technical approaches and therefore has its strengths and shortcomings. Therefore, results are indicative and care should be taken with interpreting absolute numbers or comparing results from different tools. It is often more sensible to consider trends over time collected by the same monitoring tool.