



# EMODnet



European Marine  
Observation and  
Data Network

## EMODnet Thematic Lot n° 2 - Seabed Habitats

**EASME/EMFF/2016/1.3.1.2/Lot2/SI2.751208**

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

**EMODnet Phase III – Quarterly Progress Report (8)**

**Reporting Period: 01/01/2019-31/03/2019**



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# 1 Highlights during the reporting period

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## **General highlights:**

- The next EMODnet Seabed Habitats partner meeting will be held at ISPRA in Rome from 2<sup>nd</sup>-4<sup>th</sup> April 2019.

## **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**

A draft version of the updated EUSeaMap with extended coverage into the Barents Sea has been created ready for internal QA by regional leads from partner organisations at the EMODnet Seabed Habitats partner meeting from 2<sup>nd</sup>-4<sup>th</sup> April.

The composite data layers for the GOOS Essential Ocean Variables seagrass, macroalgae and live coral have now been collated by the extraction of the relevant data from the catalogue of individual habitat maps from survey available through EMODnet Seabed Habitats and made available as web services via the EMODnet Seabed Habitats portal. They will appear on the map viewer when the updated mapper goes live in April and we are in liaison with EMODnet Biology to ensure that they are pulled in via web services to their Atlas of Marine Life.

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

Extensive work has been undertaken over the past quarter to facilitate the dissemination of seabed habitat data to end users. A Python workflow has been developed to improve the spatial data infrastructure and automate data management within Seabed Habitats, utilising GeoServer's API and extensive RESTful services. Future development aims to harvest and publish metadata to online portals utilising machine-to-machine communication, improving the exposure of EMODnet Seabed Habitat and access to stakeholders.

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

The contract to develop a new web mapper for the EMODnet Seabed Habitats portal has delivered. Throughout April the EMODnet Seabed Habitats team will be working on the configuration of the mapper and uploading all of the relevant layers before it making it live on the portal by the end of April.

## **Task 5: Ensure the involvement of regional sea conventions**

We have been in discussions with the OSPAR Secretariat on some work they are doing to collate benthic datasets for the North-East Atlantic and how the data that we have available through EMODnet Seabed Habitats could feed into this process.

Discussions are ongoing with RAC/SPA over developing an MoU to cover data sharing between the RAC/SPA Mediterranean Biodiversity Platform and the EMODnet Seabed Habitats portal.

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

The habitat point data ingestion is in full swing with a large number of new samples now extant within the database (see table below). JNCC have now finalised the HELCOM HUB classification on the NERC vocabulary servers, including hierarchical links, and have updated the database accordingly to reflect this new conformed vocabulary.

The backend database and webservice have been optimised to improve performance, and a new sublayer has been generated to display only points in the EUNIS classification system, filterable by habitat type and ready for the updates to the mapper and the portal in the coming quarter.

The following table summarises current holdings and updates this quarter.

Country	Total Samples	New Samples	Awaiting Ingestion
Belgium	0	0	1,282
Bulgaria	390	390	501
Denmark	361	280	0
Finland	102,951	0	0
France	9,039	0	18,879
Greece	774	774	0
Ireland	278	0	0
Italy	938	938	0
Norway	5,226	5,226	0
Portugal	1,315	1,315	0
Romania	140	140	0
United Kingdom	170,705	0	0
<b>TOTAL</b>	<b>292,117</b>	<b>9,063</b>	<b>20,662</b>

### 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

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Main challenge	Measures taken
<b>Nothing to report</b>	

### 3 User Feedback

Date	Organisation	Type of user feedback (e.g. technical, case study, etc.)	Response time
15/01/2019	Water Insight (NL)	Technical: Asking whether we created our own WMS or used a third party provider.	30 seconds
21/03/2019	University of Barcelona	<p>Case study: Professor at the University of Barcelona who teaches Benthic Habitat Mapping and would like to create a hands-on exercise to introduce EMODnet Seabed Habitats to my students.</p> <p>Wondered if we have any material to help e.g. a practical exercise to introduce EMODnet to already GIS-trained students. Would like to show the great possibilities of EMODNET by using our WMS services and develop their own GIS project fed with EMODnet data.</p> <p>JNCC suggested having a look at Use cases and WMS pages.</p>	1 minute
2018	Minouw Project	<p>User case: EMODnet Seabed Habitats substrate and bathymetry data used in a report on spatial estimates of “Fisheries footprint” on different substrate and bathymetry</p> <p><a href="http://minouw-project.eu/">http://minouw-project.eu/</a></p>	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.)
15/01/2019	Skype	WP2 meeting (internal)	O	Broadscale habitat map progress and updates
17/01/2019	Skype	EMODnet Biology/Seabed Habitats bilateral meeting	O	Discussing collaboration between the Lots, in particular the three Essential Ocean Variables which EMODnet Seabed Habitats is contributing to the Atlas of Marine Life
28/01/2019	Skype	WP5 meeting (internal)	O	Composite products
05/02/2019	Skype	WP5 meeting (internal)	O	Composite products and library of habitat maps
07/02/2019	Skype	WP2 meeting (internal)	O	Broadscale habitat map progress and updates
06/03/2019	Skype	WP2 meeting (internal)	O	Broadscale habitat map in the Barents Sea
28/03/2019	Peterborough, UK	Bilateral meeting between JNCC and the UK Hydrographic Office	O	Aim to build a partnership that would start with a future workshop/hackathon between JNCC and UKHO
<b>SUM</b>			<b>O</b>	<b>Total # of meetings organised = 7</b>
<b>SUM</b>			<b>A</b>	<b>Total # of meetings attended = 0</b>

## 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.)
23/01/2019	Poster presentation	Presenting EMODnet as a project and concentrating on the Lots that Denmark is contributing in at the 20th Marine Sea Searchers meeting in Odense, Denmark	350 participants
25/01/2019	Oral presentation	Talk on marine habitat, biodiversity and fisheries mapping for Marine Spatial Planning at a conference on Marine Biology - A bridge between seas, Faro, Portugal	
30-31/01/2019	Oral presentation	Talk on the limitations of predicting substrate classes on a sedimentary complex but morphologically simple seabed at MIM Working Group on Seabed Substrate Mapping, NGU, Trondheim, Norway	
14/02/2019	Oral presentation	Talk on habitat mapping products for Marine Spatial Planning at a meeting on MSP data availability in Galway, Ireland	20 people split into smaller themed groups of 4-6 people
19/03/2019	Oral presentation	Presenting project on facilitating the dissemination of EMODnet seabed habitat data to end users at the UK Government Data Science Accelerator Graduation event, London, UK	50 participants
23/03/2019	Oral presentation	Presentation of several mapping approaches including the use of EUNIS and EMODnet in the first congress of the municipalities of SW Portugal, Lagos at the first congress of the Infante's Land, Lagos, Portugal	
<b>SUM</b>	<b>Oral presentations</b>		<b>5</b>
<b>SUM</b>	<b>Poster presentations</b>		<b>1</b>

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

Date	Name of journal, conference, ...	Publication title	Authors	Organisation(s)
2018	Ecological Indicators	Marine biological value along the Portuguese continental shelf; insights into current conservation and management tools	Inês Gomes, Sergi Pérez-Jorge, Laura Peteiro, Joana Andrade, Juan Bueno-Pardo, Victor Quintino, Ana Maria Rodrigues, Manuela	University of Aveiro Ghent University University of Azores

			Azevedo, Ann Vanreusel, Henrique Queiroga, Klaas Deneudt	University of Vigo  Sociedade Portuguesa para o Estudo das Aves (SPEA)  Instituto Português do Mar e da Atmosfera (IPMA)  Flanders Marine Institute (VLIZ)
<b>2018</b>	Animal Biotelemetry	A review of acoustic telemetry in Europe and the need for a regional aquatic telemetry network	David Abecasis, Andre Steckenreuter, Jan Reubens, Kim Aarestrup, Josep Alós, Fabio Badalamenti, Lenore Bajona, Patrick Boylan, Klaas Deneudt, Larry Greenberg, Niels Brevé, Francisco Hernández, Nick Humphries, Carl Meyer, David Sims, Eva B. Thorstad, Alan M. Walker, Fred Whoriskey and Pedro Afonso	University of the Algarve  University of the Azores  Flanders Marine Institute (VLIZ)  DTU  Instituto Mediterráneo de Estudios Avanzados (CSIC-UIB)  CNR-IAMC  Dalhousie University  Loughs Agency  Karlstad University  Sportfisserij Nederland  The Marine Biological Association of the U.K  Hawai'i Institute of Marine Biology  University of Southampton  Norwegian Institute for Nature Research (NINA)  Centre for Environment, Fisheries and Aquaculture Science (Cefas)
<b>2019</b>	Plos One	Spatial variation in a top marine predator's diet at two regionally distinct sites	Martha Gosch, Michelle Cronin, Emer Rogan, William Hunt, Cian Luck, Mark Jessopp	University College Cork

## 6 Annex: Other documentation attached

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

## 7 New monitoring indicators

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*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.