

# EMODnet Thematic Lot n° 3 – Seabed habitats

10th bi-monthly Report

Reporting Period: 01/05/2015 – 30/06/2015

Date: 22/07/2015

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# 1. Highlights in this reporting period

## 2. Meetings held since last report

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Date	Location	Topic	Short Description
23 Jun. 2015	Skype conf.	Thresholds	<ul style="list-style-type: none"> <li>• Final decision on thresholds values for:               <ul style="list-style-type: none"> <li>- biozones</li> <li>- energy at the seabed</li> </ul> </li> </ul>
25 Jun. 2015	Skype conf.	Model runs	<ul style="list-style-type: none"> <li>• Summer planning for model runs:               <ul style="list-style-type: none"> <li>- Atlantic</li> <li>- Med. + Black Sea</li> <li>- Baltic Sea</li> </ul> </li> </ul>
30 Jun. - 2 Jul. 2015	JRC	Inspire meeting and Steering Committee meeting	<ul style="list-style-type: none"> <li>• Inspire meeting to check Emodnet's compliance to Inspire</li> <li>• Steering Committee in the presence of JRC staff</li> </ul>

## 3. Work package updates

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### ***WP1 – EUNIS applicability***

Not applicable for this period

### ***WP2 - Base layers collation***

Not applicable for this period

### ***WP3 - Biological data collation***

Efforts were sustained to get Posidonia polygon data from several parties in the Mediterranean, and namely from the Data and Ecosystem Conservation Office at the Mediterranean RAC/SPA (UNEP Mediterranean Action Plan) in Tunis. The incentive was to say "if you do not provide us with these data, the map will show no data when there actually

are some, which might be an issue when using these maps for regional purposes". The data are to be received later in July for inclusion in the model.

## ***WP4 – Eunis categories thresholds***

There have been a lot of developments with computation of threshold values, i.e. the values that allow for the classification of environmental variables (e.g. seabed temperature, seabed light energy) into the EUNIS broad environmental categories (e.g. 'circalittoral', 'high energy'). Where feasible, i.e. where existing sample data was available, the threshold values were fitted via statistical analyses of these points. The sample point data were occurrences of species (or associations of species, or biotopes) that are indicator of a given EUNIS category (e.g. 'Muds with *Abra prismatica*' is a biotope indicator of shallow circalittoral). The findings of the analyses are reported region by region in tables to be disclosed in the interim report due in September 2015. Most thresholds are now stable and will be used in the current model as well as its third year update. A limited number of them are still prone to some adjustments upon receiving additional sample data, however provisional values quite close to the final ones will be adopted for this run. An overview is given below of what has been performed for each basin.

### **Black Sea**

For the Black Sea, all threshold values have been worked out. They were fine-tuned via statistical analyses of sample point data provided by GeoEcomar and IOBAS. The shelf edge, which is the slope change that was chosen as the boundary between the deep circalittoral and the bathyal, is being manually drawn by HCMR.

### **Eastern Mediterranean, Aegean, Ionian and Adriatic seas**

The threshold development is complete, as well as the manual delineation of the shelf edge (for the circalittoral / bathyal boundary) and the foot of slope (for the bathyal / abyssal boundary).

### **Celtic and Greater North Sea**

It was decided to redefine all the thresholds that were defined in the framework of EUSeaMap 1. The infralittoral / circalittoral boundary threshold was defined via statistical analysis of sample point data provided by the Marine Recorder and sample point data of lower growth limit of kelp for Norway. A new statistical analysis of the Marine Recorder samples was also carried out for the high / moderate / low energy EUNIS categories. Analysis is in progress for the shallow circalittoral / deep circalittoral and the deep sea boundaries.

### **Bay of Biscay, Iberian Peninsula, Azores, Canary Islands**

The classification into EUNIS categories will largely build upon the thresholds that were developed within the framework of MeshAtlantic project. However for the infralittoral / circalittoral boundary a new threshold value given by the analysis of the Marine Recorder and Norwegian samples will be used (see above, Celtic and Greater North Sea). Since there has been new fine-scale inputs for wave- and current-induced energy for the bay of Biscay, all the thresholds for that area are also being redefined for the classification into high / moderate / low energy EUNIS categories and for the shallow circalittoral / deep circalittoral.

### **Baltic Sea**

Thresholds that were developed in the context of EUSeaMap 1 will be re-used. For the fully marine Skagerrak, the thresholds developed for the Celtic and Greater North Sea will be adopted.

### **Norway**

The wave energy variable that will be used in Norway for the classification into the high / moderate / low energy levels or shallow circalittoral / deep circalittoral will be a wave exposure index, while it is kinetic energy at the seabed in other regions. The threshold values will be calibrated so that the resulting mapped boundaries match the boundaries defined for the Celtic and Greater North Sea where the exposure index and the kinetic energy layers overlap. For other boundaries the thresholds developed for the Celtic and Greater North sea will be used.

## ***WP5 – Modelling and confidence***

Partners responsible for the modelling of the different regions met in June and discussed common technical issues, model boundaries, use of new thresholds and progress to date.

Progress has been made on adapting existing GIS workflows to the new mapping areas, which required modification due to regional difference in data types. Modellers started adapting the data layers received by partner as input data for the GIS workflow, and the GIS workflow itself.

## ***WP6 – Habitat map collation and webGIS issues***

New habitat maps from project partners are currently being ingested ready to be published on the portal during the next update.

Feedback provided by the Secretariat on usage of the web portal is being considered and potential solutions explored; changes have already been made to the website to increase the visibility of the portal's Web Map Service to users.

Modifications to improve the user experience of the interactive map and its functionality are currently being tested, including:

- Improved 'clean' layout for low-resolution screens.
- Improved map layer groupings on the table of contents.
- Improved system of viewing "habitat maps from survey."
- Addition of MEDISEH Zostera data.

Python scripts created for users wishing to submit data to EMODnet Seabed Habitats have been moved to GitHub to provide users with consistent access to the most recent version.

## **4. Specific challenges or difficulties encountered during the reporting period**

## **5. User Feedback**

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## 6. Outreach and communication activities

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THE HCMR team presented a paper under the EUSeaMap project at a national conference “Hellenic Symposium on Oceanography & Fisheries” held in Lesbos. The paper is entitled: “Bathymetric data and geologic elements analysis towards the assessment of coastal rocky bottoms” by Drakopoulou, P., Kyriakidou, Ch., Sakellariou, D.

## 7. Updates on Progress Indicators

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### ***Indicator 1 - Volume of data made available through the portal***

Not applicable

### ***Indicator 2 - Organisations supplying each type of data based on (formal) sharing agreements and broken down into country and organisation type (e.g. government, industry, science).***

Not applicable

### ***Indicator 3 - Organisations that have been approached to supply data with no result, including type of data sought and reason why it has not been supplied.***

Not applicable

### ***Indicator 4 - Volume of each type of data and of each data product downloaded from the portal***

The table below summarises the data products downloaded from the EMODnet Seabed Habitats portal in the period 06/05/2015 to 29/06/2015.

<b>Layer</b>	<b>number of downloads</b>
EUNIS habitat maps from surveys (updated 9 December 2013)	55
OSPAR threatened and/or declining habitats 2013 (shapefile version, 18 Feb 2014)	37
MESH confidence assessments and study areas (updated 9 December 2013)	20
Predicted broad-scale EUNIS habitats - Atlantic area (updated 9 December 2013)	35
Biological Zones - Atlantic area	25

Phase 1 Predicted habitats - North Sea and Celtic Sea	48
Phase 1 Predicted habitats - Baltic Sea	23
Phase 1 Predicted habitats - western Mediterranean Sea	14
Phase 1 Energy - North Sea and Celtic Sea	19
Phase 1 Energy/Wave Exposure - Baltic Sea	11
Phase 1 Seabed Substrata - western Mediterranean Sea	17
Phase 1 Halocline - Baltic Sea	10
Phase 1 Salinity - Baltic Sea	11
Phase 1 Fraction of light at the seabed - North Sea and Celtic Sea	18
National Marine Landscape Maps (published 2008)	24

### ***Indicator 5 - Organisations that have downloaded each data type***

The following is a list of organisations that have downloaded data from the EMODnet Seabed Habitats download page ([www.emodnet-seabedhabitats.eu/download](http://www.emodnet-seabedhabitats.eu/download)) in the period 06/05/2015 to 29/06/2015:

Aberystwyth university	INPEX Corporation
APEM	Institut océanographique Paul Ricard
Associação para as Ciências do Mar	Instituto Español de Oceanografía
AZTI-Tecnalia	IPMA
CNR-IAMC Mazara del Vallo	JNCC
Deltares	JRC-IES-H06 Unit (DERD)
dtu aqua	KU-MARSTEC
EEA	Leibniz Institute for Baltic Sea Research
Envision Mapping Ltd	Marine Biological Association
FCUL	MedPAN organisation
FLPS	MMO
Gardline	MMT
GRID-Arendal	MRAG
Hartley Anderson	MSG Sustainable Strategies
Heriot-Watt University	Navionics
Ifremer	Newcastle University
IMARES Wageningen UR	NLWKN Niedersachsen

NLWKN-Forschungsstelle Küste  
OSPAR Commission  
personal use  
Plymouth University  
RPS  
RPS Group  
School of fisiography  
SHOM  
SIFT UK  
Staatsbosbeheer  
Stockholm University  
Swansea Uni  
Thomson Ecology  
U.S. Geological Survey  
UALG  
Universidade de Aveiro  
University Antwerp - Ecosystem Management Research  
Group  
University of Copenhagen  
University of Helsinki  
University of St Andrews  
upm  
Vrije Universiteit Amsterdam  
Wageningen University  
WWF Spain



***Indicator 6 - Using user statistics to determine the main pages utilised and to identify preferred user navigations routes***

This information is gathered by Google Analytics.

User statistics for mapper and download pages of EMODnet Seabed Habitats portal for the period 06/05/15 to 29/06/15.

page description	page address	Number of unique visitors	How many users end their visit on this page	Average residence time on page (mm:ss)
Home page	<a href="http://www.emodnet-seabedhabitats.eu">www.emodnet-seabedhabitats.eu</a>	35	10	00:29
View data	<a href="http://www.emodnet-seabedhabitats.eu/mapper">www.emodnet-seabedhabitats.eu/mapper</a>	472	371	03:45
Download data	<a href="http://www.emodnet-seabedhabitats.eu/download">www.emodnet-seabedhabitats.eu/download</a>	157	121	02:05
Build custom map	<a href="http://www.emodnet-seabedhabitats.eu/custommap">www.emodnet-seabedhabitats.eu/custommap</a>	48	9	00:58
Search metadata	<a href="http://www.emodnet-seabedhabitats.eu/search">www.emodnet-seabedhabitats.eu/search</a>	36	11	00:47

***Indicator 7 - List of what the downloaded data has been used for (divided into categories e.g. Government planning, pollution assessment and (commercial) environmental assessment, etc.)***

This information is collected from the form that users fill out when downloading data from the download page ([www.emodnet-seabedhabitats.eu/download](http://www.emodnet-seabedhabitats.eu/download)).

Reasons for downloading data from the EMODnet Seabed Habitats portal – 06/05/2015 to 29/06/2015.

Reason	Proportion of total
Commercial/industry	10 %
Education	8 %
Exploration/Exploitation surveys	1 %
Fisheries	3 %
Government	12 %
Personal use	3 %
Research	62 %
Other	1 %