



EMODnet



European Marine
Observation and
Data Network

EMODnet Thematic Lot n°2 – Seabed Habitats

EASME/EMFF/2018/1.3.1.8/Lot2/SI2.810241

Start date of the project: 25/09/2019 - (24 months)

EMODnet Phase III – Quarterly Progress Report (12)

Reporting Period: 01/04/2020 – 30/06/2020



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1. Highlights in this quarter

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

- New individual habitat maps from surveys: 26 new habitat maps have been processed (6 in France, 5 in Ireland, 9 in Italy, 2 in Denmark, 4 in Spain)
- New survey sample points: 3 new datasets (1 in Ireland, 2 in Denmark).
- These datasets will be published online in September

Task 2: construct products

- We had further discussions with OSPAR and defined the specifications for a EUNIS level 3 composite data product for the NE Atlantic, combining survey maps and EUSeaMap. This product is needed for the assessment of the OSPAR common indicator named "[Extent of Physical Damage to Predominant and Special Habitats](#)". We are working together on a bespoke data call to gather EUNIS habitat maps to be included in the product.
- Based on the RAC/SPA requirement and the conversations with the Archipelagos Institute, we agreed that the project would lead on the creation of a new product showing best evidence on "coralligenous and other calcareous bio-concretions" in the Mediterranean Sea".
- EUSeaMap
 - We have discussed with HELCOM on the new EUNIS classification. This new version is meant to integrate the HELCOM HUB classification. We have agreed that HELCOM would verify that the new EUNIS matches HELCOM HUB in an appropriate manner. Depending on their findings, EUSeaMap will be published in EUNIS 2019 only (appropriate match), or in EUNIS 2019 plus HELCOM HUB (inappropriate match).
 - The technical report on EUSeaMap 2019 has been published. It is available at the following address: <https://doi.org/10.13155/74782>

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

- Query came from Anna Krystalli, a Post-Doc at Sheffield University within Tom Webb's group (EMODnet Biology). They had problems accessing the Seabed Habitats' web services and reached out to us for support. Full GitHub thread can be found [here](#).
- Following conversations with the Central Portal, the [GitHub guidance page](#) was amended as they contained the incorrect M2M endpoints. The email address for the monitoring tool has also been amended as it was pointing to a now inactive address.

Task 4: maintain and further develop a thematic web portal

- Following feedback with users, we have made some changes to our download forms, specifically to allow users to download multiple layers from different download forms by using the same URL: for example [this link](#) will select 4 layers from 3 different download forms.

- For consistency purposes, we have also renamed the download links to be consistent with the GeoServer layer names, however this will mean we will need to do update the GeoServer DataURLS following this change.
- In order to promote the data and data products made available, two items have been added to the portal: [a story map](#) and a [webpage](#) providing a prominent summary of the data and data products

Task 5: ensure the involvement of regional sea conventions

- We have consulted the four regional sea commissions of Europe, either by email (Black Sea, RAC/SPA) or through meetings (HELCOM, OSPAR). Feedback from the Black Sea commission is pending. Based on the consultations, we have concluded that the priorities for new composite data products to be produced in the 2019-2021 phase of EMODnet Seabed Habitats will be:
 - a. A combined, harmonized data product showing the best evidence for extent of habitats classified to level 3 of EUNIS v2007-11 in the OSPAR area, due March 2021, so that OSPAR ICG-COBAM may carry out an up-to-date assessment of the OSPAR common indicator 'Extent of Physical Damage to Predominant and Special Habitats'.
 - b. A combined, harmonized data product showing the best evidence for extent and distribution of coralligenous and other calcareous bioconcretions in the Mediterranean, due May 2021, to support RAC/SPA in delivering the Regional Action Plan for the conservation of this key marine habitat.
 - c. In the Baltic, EUSeaMap will be published either in EUNIS 2019 alone or in EUNIS 2019 and HELCOM HUB (see task 2 for further details), due September 2021
- A report will be produced when feedback from the Black Sea commission is received

Task 6: install a process to monitor performance and deal with user feedback

- No new work has taken place as we already have a process to monitor performance and deal with user feedback

Task 7: operate a help desk offering support to users

- This task is operated routinely

2. Identified issues: status and actions taken

[Provide an overview of the issues identified by EASME (Table A), if any, during the reporting period, the status of those issues and actions taken to address them and/or roadmap with remaining actions planned to resolve the issues. In Table B, provide information about issues and challenges identified by yourself, if any.]

A. Priority issues identified and communicated by EASME/ DG MARE/ SECRETARIAT			
Priority issue	Status (Pending/Resolved)	Action(s) taken / remaining actions planned	Date due
<p>Email from Lucie Pautet (EASME) on 24/2: "INSPIRE Metadata issue: regarding compliance of metadata, we are aware that you are working on some script. Meanwhile, the Secretariat has been running some compliance checks and listed the problems it flagged. Please review the attached zip file to help you achieve full compliance by end of March when the Secretariat will be running another check. If you have any question, don't hesitate to contact the Technical Coordinator through the JIRA ticket." (JIRA issue EMODNET-33)</p>	Pending	<p>Recap of task: for every layer in GeoServer, make it so that the data url points to a predefined download link.</p> <p>As explained by email on 17/03/2020: by 31/03/2020, we expected to have the work flow in place and have added data URLs for many of the layers (step 1), but we may have to work through some of the problematic layers manually, which will be laborious and take us beyond the deadline (step 2). We agreed with Lucie Pautet that the deadline for this subsequent task would be the end of the next reporting period.</p> <p>Current status: we have developed the workflow needed to automate most of this task. Where feasible, we ran this script to complete most of the layers and submitted this update to the Secretariat.</p> <p>Tim Collart reran the evaluation report which highlighted some outstanding issues remaining. For these layers it may be simpler to perform some manual changes.</p>	15/10/2020

B. Issues / challenges identified by the thematic assembly group itself

Priority issue / challenge	Status (Pending/Resolved)	Action(s) taken / remaining actions planned	Date due
Tasks taking longer: for some partners, everything takes longer due to slow network speeds or having to take addition time off to look after children	Pending	More days allocated to these tasks; although this will inevitably mean that fewer days will be available for other tasks later in the project.	
Inability to perform some tasks: some partners cannot process data due to inability to access their enterprise network (i.e., they do not have the technology for that)	Pending	Data processing have been postponed in some cases, which will mean we could have less data than expected for our next planned portal upload (August 2020). As a result, we have slightly pushed back that deadline (15 th of September)	
Meeting with CMEMS organised in June postponed	Resolved	Will take place in October, the 8 th	
EMODnet indicators	Pending	JNCC voiced some concern over the new indicators to be used, mainly surrounding area calculations for sea basins and having a streamlined and consistent approach across all lots.	
Hosting the ICES VME database on our mapper and GeoServer as a cascaded WMS layer.	Pending	JNCC tried to cascade the VME database to their servers but encountered issues, specifically a CORS error. This occurred because the EMODnet Seabed Habitats website has SSL encryption enabled, whereas the ICES website does not, meaning it cannot be pulled through to our servers. JNCC contacted ICES, who in turn asked how we implemented SSL across our services and websites. JNCC provided general advice on how we have done it within EMODnet and JNCC internally.	

3. User feedback (Contact Us form, online chat & other communication means)

[Provide a list of all user feedback received on your portal in chronological order within the reporting period. Indicate the type of the feedback received, a clear description of the query, and the actions undertaken to resolve the issue (e.g. update of metadata, fixing a particular issue with the map viewer). Indicate the status of the query (i.e. has the query been resolved or not yet), and if not provide an explanation why. List any feedback you received on the portal that can be used to build EMODnet use cases. Provide information in the table.]

Overview of user feedback and/or requests received in this quarter							
Date	Organisation	Type of user feedback (e.g. technical, case study, etc.) and short description of the feedback received	Means of contact	Response time	Status of user query: resolved/pending	Measures taken to resolve the query	Status: if not (yet) resolved/pending, explain reason why and expected timeline
22/04/2020	Southampton University	Technical - how are the infralittoral and circalittoral biozones separated?	Live Chat	1 minute	resolved	Live guidance and provided a link to the technical report	resolved
22/04/2020	Southampton University	Technical - how are the infralittoral and circalittoral biozones separated?	Live Chat	1 minute	resolved	Live guidance and provided a link to the technical report	resolved
27/04/2020	AWJ Marine	General - How do I load EUNIS & MSFD into QGIS.	Contact Form	25 hours	resolved	Provided a link to QGIS guidance	resolved
27/04/2020	AWJ Marine	General - How do I load EUNIS & MSFD into QGIS.	Contact Form	25 hours	resolved	Provided a link to QGIS guidance	resolved

29/04/2020	AWJ Marine	General - Do you have a .sld file for the EUSeaMap EUNIS symbology?	Contact Form	10 mins	resolved	Attached the .sld file	resolved
29/04/2020	AWJ Marine	General - Do you have a .sld file for the EUSeaMap EUNIS symbology?	Contact Form	10 mins	resolved	Attached the .sld file	resolved
04/05/2020	Emodnet Central	General - One of the diagrams on the Data Submission pages is not working	Live Chat	1 second	resolved	Re-uploaded the image	resolved
04/05/2020	Emodnet Central	General - One of the diagrams on the Data Submission pages is not working	Live Chat	1 second	resolved	Re-uploaded the image	resolved
06/05/2020	The Rivers Trust	Technical - Is EUSeaMap available as a WFS?	Live Chat	1 second	resolved	Links provided	resolved
06/05/2020	The Rivers Trust	Technical - Is EUSeaMap available as a WFS?	Live Chat	1 second	resolved	Links provided	resolved
18/05/2020	Karteco	General - Are the MEDISEH layers available to download?	Query sent to Secretariat	4 days	resolved	Made the layers available to download and resent the link	resolved
18/05/2020	Karteco	General - Are the MEDISEH layers available to download?	Query sent to Secretariat	4 days	resolved	Made the layers available to download and resent the link	resolved
20/05/2020	Not disclosed	General - Do you have QGIS data in the north sea?	Live Chat	1 day	resolved	Sent a link to EUSeaMap	resolved
20/05/2020	Not disclosed	General - Do you have QGIS data in the north sea?	Live Chat	1 day	resolved	Sent a link to EUSeaMap	resolved

25/05/2020	Clearwater Fine Foods	General - Do you have a .lyr file for the EUNIS Symbology?	Email	1 day	resolved	Attached the .sld file	resolved
25/05/2020	Not disclosed	Technical - I'm having problems with the WMS raster legend. I've downloaded the files but don't know how to use them on QGIS.	Live Chat	1 day	pending	Emailed to ask which layers they are having problems with	Waiting to hear back
25/05/2020	Clearwater Fine Foods	General - Do you have a .lyr file for the EUNIS Symbology?	Email	1 day	resolved	Attached the .sld file	resolved
25/05/2020	Not disclosed	Technical - I'm having problems with the WMS raster legend. I've downloaded the files but don't know how to use them on QGIS.	Live Chat	1 day	pending	Emailed to ask which layers they are having problems with	Waiting to hear back
26/05/2020	French Natural History Museum	General - Do you have homogenised datasets available on seabed habitats available to download?	Contact Form	1 day	resolved	Emailed with a download link to EUSeaMap and enquired whether there were any other data needed	resolved
28/05/2020	Not disclosed	Technical - I'm having issues displaying the legend for the substrate data I downloaded	Live Chat	1 second	resolved	Provided live assistance	resolved
01/06/2020	BP	General - I would like to understand the biotopes and predominant species on the seabed around Hornsea. If at all possible, I am also interested in the water column.	Contact Form	2 hours	resolved	Emailed with a link to mapper with some layers turned on	resolved

04/06/2020	Not disclosed	Technical - The download links from the mapper to the download page aren't working.	Live Chat	1 second	resolved	Provided live assistance	resolved
10/06/2020	Not disclosed	Technical - I don't know how to download the bathymetry data for the Med.	Live Chat	1 second	resolved	Provided live assistance	resolved
11/06/2020	Not disclosed	General - A download link doesn't seem to appear when I select the OSPAR data to download	Live Chat	2 hours	resolved	Emailed with the correct link	resolved
12/06/2020	Not disclosed	Technical - I've downloaded your polygon data which is in WGS84, but how do I calculate the area?	Live Chat	1 second	resolved	Provided live assistance	resolved
22/06/2020	Not disclosed	Technical - How do I download the bathymetry data for the Med basin?	Live Chat	1 second	resolved	Provided live assistance	resolved

4. Meetings/events held/attended & planned

A. Meetings/events organised and attended				
Date	Location	Type event (internal or external meeting, training (workshop), etc.)	Meeting attended (A) / organised (O)	Short description and main results (# participants, agreements made, etc.)
28/04/2020	Videoconf	Meeting	organised	WP2 meeting - Organised by ISPRA - Partners attending: All Partners - to discuss about the work already done, any issue in data preparation and check processes and the future step - Upcoming
04-08/05/2020	Videoconf	Meeting	attended	ICES working group on marine habitat mapping - Organised by ICES - Partners attending: JNCC, Ifremer - WGDEC (Working Group on Deep-water Ecology) has asked WGMHM for help with another important component of their work. NAFO and ICES are adopting VME Elements for predicting the areas where VMEs are likely to occur. Elements are topographical, hydro-physical or geological features. WGMHM has offered the help of WGMHM in the delineation of these Elements for WGDEC this year - 1) VME elements are defined without clear rule-sets for their consistent calculation, 2) for investigating where VME habitats are likely to occur WGMHM does not recommend the use of VME elements without further refinement, 3) it is recommended that geostatistical modelling techniques are used instead Report: 10.17895/ices.pub.6034
27/05/2020	Videoconf	Meeting	organised	2nd project meeting - Organised by Ifremer - Partners attending: All Partners - Occurs every 6 months - WP leaders present updates of their WP -
05/06/2020	Videoconf	Meeting	attended	EMODnet Seabed Habitats portal technical presentation - Organised by DG MARE - Partners attending: Ifremer, JNCC - EMODnet Seabed Habitats presented an overview of features/technology specific to the thematic portal - EMODnet Seabed Habitats presented the data and products, and how to find , visualize and download Seabed Habitats data and metadata through the central portal- Provided some though on main functionalities required in the new central portal to allow users to easily discover, visualise and access habitat data

15/06/2020	Videoconf	Workshop	attended	<p>EMODnet biology WP4 products Workshop - Organised by Emodnet Biology - Partners attending: JNCC - One of the deliverables of EMODnet Biology WP4 work package is a workshop, focusing on populating our Atlas of Marine Life - Supporting a piece of work started by EMODnet Biology aimed at using species and habitat occurrences to improve both our products - Scoping a method/iterative process to make use of both lots data</p>
15/06/2020	Videoconf	Meeting	Organised	<p>HELCOM and EMODnet Seabed Habitats collaboration - Organised by SYKE - Partners attending: SYKE, Ifremer , JNCC - EMODnet Seabed Habitats objectives for data collation and creation of new products; HELCOM's approach data collation and the need for regional-scale habitat products. Ways to work together on data collation and making data available. Whether there are products that EMODnet could produce/collaborate on that would be useful to HELCOM.</p> <p>Five participants: Leena Laamanen (SYKE), Mickaël Vasquez (Ifremer), Eleonora Manca (JNCC), Jannica Haldin (HELCOM Secretariat), Joni Kaitaranta (HELCOM Secretariat).</p>
16/06/2020	Videoconf	Workshop	attended	<p>EMODnet-CMEMS Thematic Workshop on Coastal Issue - Organised by co-organizers EMODnet, CMEMS/MO<i>i</i>, DG MARE and DG DEFIS - Partners attending: JNCC - A technical meeting with EMODnet, CMEMS, inter-DG representation and the EEA to discuss marine data and data products and information on Coastal behavior. Objectives include assessing existing capabilities and emerging areas for collaboration across EMODnet themes and between EMODnet and CMEMS, with a regional focus. - Identified some complementarities and interoperability of both initiatives for coastal behavior information as well as some areas for collaboration between EMODnet and CMEMS in the coastal area - These will be discussed in more detail - Some opportunities for collaboration across different EMODnet themes were also discussed.</p>

19/06/2020	Videoconf	meeting	attended	EMODnet biology technical presentation - Organised by DG MARE - Partners attending: Ifremer - EMODnet Biology to present an overview of features/technology specific to the thematic portal - It was discussed which specific items of the EMODnet Biology portal could be difficult to transfer to the Central Portal
23/06/2020	Videoconf	meeting	attended	Update on indicators - Organised by EMODnet Secretariat - Partners attending: Ifremer, JNCC - Secretariat to update thematic lots on new indicators - Excel file largely revised
25/06/2020	Videoconf	meeting	attended	Oral Presentation of Eleonora Manca (JNCC) at a project meeting. Title: EUNIS and EUSeaMap broad scale seabed habitat map. Project: Lanfest Gap analysis of U.S. marine biodiversity protection: Scoping a framework for marine stewardship. The presentation was part of an interactive series of scoping discussions focusing on case studies that approach marine biodiversity from either a conservation planning or biodiversity monitoring lens. It was presented to a working group of experts from around the world, charged with developing a data-based framework for quantifying marine biodiversity, and assessing spatial gaps in its protection, in US waters. Link: https://www.lenfestocean.org/en/news-and-publications/fact-sheet/expert-teams-marine-biodiversity-dialogues
SUM			O	Total # of meetings organised = 3
SUM			A	Total # of meetings attended = 7
B. Meetings/events planned in the future				
Date	Location	Type event (meeting, training (workshop), etc.)	Meeting to be attended (A) / organised (O)	Short description and main expected outcomes
13/07/2020	Videoconference	Meeting	organised	EMODnet biology and EMODnet Seabed habitats OBIS collaboration and outreach - Organised by Emomodnet Biology - Partners

				<p>attending: JNCC - Catch up with EMODnet biology coordinator and WP-lead on coordinating outreach activities and working together for ingestion of data into EurOBIS - Agreement of joint outreach activities catch up on progress with EurOBIS ingestion. Coordination of future work, synergies and improved way of working together</p>
08/10/2020	Toulouse, France	Meeting	organised	<p>Meeting with CMEMS - Organised by Ifremer - Partners attending: Ifremer - Was initially scheduled 17/06/2020, but postponed because no flight to Toulouse and overload Follow-up of the videoconf that occurred 28/02 - Further discuss ways to highlight and link to EMODnet products on CMEMS data services - Upcoming</p>

5. Communication and dissemination assets

A. Communication products				
Date	Communication action/ material	Short description (of the material, title, ...) and/or link to the activity	Main results	Name of event at which material was disseminated (if applicable)
06/05/2020	News item on ESH portal: A webpage providing a prominent summary of the data and data products	The variety of harmonised marine data and products are summarised in the form of pivot tables. The tables can be used to identify which data and products are available in different basins, which can be viewed by clicking on the links within in each product. Link	Promotes the data content	
14/07/2020	EMODnet Seabed habitat Map viewer Story Map on accessing data on the EMODnet Seabed Habitats Portal	A story map which will be available on the ESH website describing data available through the portal and how users can access it	Improve user-friendliness of the portal and promote the portal	
14/07/2020	News item on ESH portal: a story map	Promoting the publication of the Story map Link	Improve user-friendliness of the portal and promote the portal	
12/06/2020	Report	Jordan Pinder (JNCC) - Contribution to EMODnet Annual Report 2019	Input to the "EMODnet in Figures" section	
B. Planned communication products				
Date	Communication action/ material	Short description (of the material, title, ...) and/or link to the activity	Main results expected	
05/08/2020	News item on ESH website and central portal	Publication of Stakeholder report	A review of stakeholders needs	
10/2020	News item on ESH portal and central portal	Addition of new datasets to the portal	More traffic to the portal and promotion of the portal	
10/2020	Tweet	Addition of new datasets to the portal – user of the story map in the tweet	More traffic to the portal and promotion of the portal	
11/2020	Tweet	Meeting EMODnet biology on ingestion of habitat data into EuroOBIS	Promote the activities of both lots	
11/2020	News item on ESH portal and central portal	Meeting EMODnet biology on ingestion of habitat data into EuroOBIS	Promote the activities of both lots	

List of known publications using EMODnet data or data products

Date	Type and name of journal, conference, ...	Publication title including DOI (if known)	Author(s)	Organisation(s)
February 2020	Progress in Oceanography	Distribution and life history trait models indicate vulnerability of skates DOI		
January 2020	ETC/ICM Report	ETC/ICM Report 4/2019: Multiple pressures and their combined effects in Europe's seas Link		Eionet
June 2020	Dataset	Europe Seas habitats potentially affected by anchoring Link		EEA
2020	Mediterranean Marine Science	The contribution of wind-wave energy at sea bottom to the modelling of rhodolith beds distribution in an off-shore continental shelf DOI		
March 2020	Ecological Modelling	Assessing natural capital value in marine ecosystems through an environmental accounting model: A case study in Southern Italy DOI		
March 2020	ICES Journal of Marine Science	Seasonality of spatial patterns of abundance, biomass, and biodiversity in a demersal community of the NW Mediterranean Sea DOI		
May 2020	Journal of Applied Ecology	Extending full protection inside existing marine protected areas, or reducing fishing effort outside, can reconcile conservation DOI		

6. Monitoring indicators

[Please refer to the standardised monitoring tool i.e. Matomo to complete the designated excel template on monitoring and progress indicators in annex, and provide a comment or short explanation on numbers and trends in the table below for each indicator when possible/applicable. If monitoring was carried out using tools other than Matomo, please indicate clearly.]

Comments on the progress indicators in the excel template	
Progress indicator	Comment
1.1 Status/Volume and coverage of all available acquired data A) Volume and coverage of available acquired data	No updates this quarter. Additionally, the only "data" we hold here are point records, meaning that area calculations are not relevant.
B) Usage of data in this quarter (formerly indicator 4)	The habitat point datasets were not captured in the download forms in the previous quarter so the trend cannot be captured this quarter. This has been amended, so trends can be provided in future reports.
1.2 Status/Total number and the coverage of all built & external data products A) Volume and coverage of available built & acquired data products	Based on discussion's with Conor Seabed Habitats have calculated the area coverages of each product within each sea basin. Stats provided are based on what was done in the previous quarter following recommendation from Conor. No updates have been made this quarter as have bi-annual upload processes. The next upload is scheduled for August/September.
B) Usage of data products in this quarter (formerly indicator 4)	Previous report included both modelled habitat maps (3 datasets) in the composite products, whereas it should be in a separate tab. Trend has not been reported.
2. Organisations supplying/approached to supply data and data products within reporting period	8 data providers were approached or volunteered to supply survey habitat maps with no restriction
3. Online 'Web' interfaces to access or view data	Some progress was made with the INSPIRE compliance task for our GeoServer instance. Tim provided an amended report which detailed some layers were still outstanding.
5. Statistics on data volunteered through download forms	Information on users from NGOs / Cilliv society is not captured by our download forms. We have contacted our contractor to make the necessary changes so our download forms reflect these new reasons. Information on countries using our data is currently not captured by our download forms of monitoring services. Changes we made by the next quarterly report to start capturing this information.

7. Published use cases	There is still a lot of use cases on the Seabed Habitats website which are not appearing on the Central Portal.
9.1. Technical monitoring	No specific comment here, would happily take advice on whether these response times are acceptable.
9.2. Portal user-friendliness (Visual Harmonization score)	We will rectify the incorrect social icons used.
10. Visibility & Analytics for web pages	Recurring theme with spike of activity across all activities around the last quarterly report (April), unsure what caused this but trends seem to be returning to normal for the most part.
11. Visibility & Analytics for web sections	
12. Average visit duration for web pages	

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.

7. Annex: Other documentation attached

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