



## EMODnet Thematic Lot n° 5 - Biology

8<sup>th</sup> Bi-monthly Report

Reporting Period: 10/05/2015 – 29/07/2015

Date: 30/07/2015

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# 1. Highlights in this reporting period

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*Provide a short summary of the key achievements and/or events of interest to a wider audience within this reporting period you wish to highlight – this can be based on the indicators or any other of the reporting sections.*

- *11 new EMODnet biology datasets published through the dataportal –amongst them complete long term benthic and planktonic Swedish marine monitoring program*
- *Organisation WP4: Data rescue workshop*
- *Organisation WP2 species trait workshop*
- *Organisation WP5 data product meeting*
- *Participating in EMODnet Steering Committee meeting*
- *Creation OOPS products on Zooplankton indicators for ICES and available through WMS/WFS*

## 2. Meetings held since last report

List here the meetings held since the last bi-monthly report, if relevant add short description

[Provide information in table - Maximum 1 page]

Date	Location	Topic	Short Description
08-11 June 2015	Crete, HCMR	EMODNET WP4 Workshop: Mechanisms and guidelines to mobilize legacy biodiversity data	The presentation of tools and state-of-art approaches in mobilizing of historical data, a hands-on evaluation of these tools by a group of data managers, a discussion on further improvements of such tools and downstream integration into literature and data repositories – participation of WP4 partners and partners from EU-GEOBON project.
09-10 June 2015	Crete, HCMR	EMODNET Biology: Marine Species Traits Workshop	This two-day workshop held at the Hellenic Centre for Marine Research (HCMR), Crete was the third in a series of European Marine Observation and Data Network (EMODNet) Biology meetings to develop a framework for the description, collation and dissemination of traits information relating to marine species.
30 June-2 July 2015	ISPRA, JRC	EMODnet-INSPIRE workshop EMODnet Steering Committee Meeting	Workshop on information exchange between INSPIRE and EMODNet. Presentation result EMODnet Biology at Steering Committee Meeting
29 July 2015	Oostende, VLIZ	WP5 Meeting	Discussion with NIOZ-VLIZ and deliverables for WP5 before next reporting.

### 3. Work package updates

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*Using the work package as a header list here the activities that occurred since the last bi-monthly report. If there was no activity to report leave the section blank.*

#### **WP1 – Project Management**

*All partners provided invoice for second payment.*

#### **WP2 – Identification and collection of species, species attributes and species indicator information**

- WP2 Workshop: EMODNET Biology: Marine Species Traits Workshop organized 9-10 June 2015

*This two-day workshop held at the Hellenic Centre for Marine Research (HCRM), Crete was the third in a series of European Marine Observation and Data Network (EMODNet ) Biology meetings to develop a framework for the description, collation and dissemination of traits information relating to marine species.*

*With contributions from 19 experts with both scientific and technical backgrounds a wide-range of relevant topics were presented and discussed, across the breadth of traits information collated within EMODNet Biology, from those relating to the species morphology to its perceived 'importance' to society.*

*Following presentations highlighting previous work, how traits have been applied to answer science use-cases and international examples, the participants were split into 3 groups to discuss specific aspects of the work and to propose next steps required for the publication of the traits hierarchy, collation of existing traits values from disparate sources and the tools required to search, query and download traits-based information.*

*Workshop report is under review.*

- *The manuscript: Biological and ecological traits of marine species (Costello et al.) is accepted (PeerJ Journal).*
- *The vocabulary of marine species traits is further developed under:*  
[http://www.marinespecies.org/traits/wiki/Traits:Marine\\_species\\_traits](http://www.marinespecies.org/traits/wiki/Traits:Marine_species_traits)

### **WP3 – Data access to marine biological data**

- *IMAR: 14 Popa datasets and 1 Demersais delivered. 1 COLETA dataset. Delivery completed (abundance data is missing)*
- *OGS: 14 datasets delivered. 6 in QC process*
- *Deltares: birds dataset delivered (but under revision), fish dataset in QC process IMARES: Macrobenthos dataset to be delivered*
- *IEO: 12 datasets delivered. 1 in QC process*
- *ILVO: 4 datasets delivered. (5?) remaining datasets under embargo*
- *MBA: Data in QC process (no progress since December 2014)*
- *SMHI: all datasets delivered. Delivery completed, although updates of all 4 datasets are expected to improve (mapping) quality*
- *AU: 1 dataset delivered. Other datasets to be delivered*
- *IFREMER 1 dataset in QC process (Feedback given 10/3). Other datasets to be delivered*
- *IMGW: delivery of 4 datasets expected to be completed in September 2015*
- *ICES 1 dataset (eggs and larvae) in QC process.*

### **WP4 – Data archaeology**

- *A WP4 workshop on data mining tools was organised 8-11 June in Crete*

*The EMODNET WG4- EUBON Workshop took place during 8-9 June 2015 in HCMR, Heraklion (Gournes, Crete).*

*The overall objective of EMODnet WP4 is to fill in the spatial and temporal gaps in EMODnet species occurrence data availability by implementing data archaeology and rescue activities. This is a two-part process of first identifying and locating data and then performing the steps required to merge them into a digital database, which further will be distributed through EurOBIS, and the EMODnet data portal.*

*During this first part, many old faunistic reports have been located which contain valuable occurrence data on marine species. The extraction of these data and their conversion into OBIS format (a Darwin Core extension), is a slow and manual process.*

*In this workshop the Golden Gate Imagine software was demonstrated and participating data managers received training on how to semi-automate the previously mentioned tedious process. Different types of legacy literature were explored such as expedition results, protocol log books and more biodiversity research articles. GoldenGate Imagine was used both for digital born files and for scanned image PDF files. Via hands-on sessions the complete process was studied: starting from how to scan a document, to import it into Golden Gate Imagine, to mark different document sections as well as entities of interests (e.g. taxonomic mentions and location names), to upload the markup in the PLAZI server ([http://plazi.org/wiki/Taxon\\_Search\\_Portal](http://plazi.org/wiki/Taxon_Search_Portal)) and from there to retrieve the auto-generated Darwin Core Archives.*

*Finally, in addition to the hands-on sessions, extensive discussions among the data managers and the information technology experts resulted in the compilation reward-via-publication suggestions and best practices (e.g. in scanning documents) to the assistance of the data extraction process.*

- 4 proposals for data digitization were selected for funding within the data grant program
  - *First project is to integrate into EMODNet Biology macrobenthic data from The Danish Biological Station who e.g. collected quantitative samples of the benthic macrofauna on a yearly basis from a range of stations in the Limjord during more than 4 decades (1910-1952) – data received, waiting for an extra qc before making available to portal*
  - *Second project is to integrate into EMODNet Biology quantitative data on benthos and zooplankton from the NW Black Sea, sampled between 1954-1968 and macrobenthos sampled between 1997-2014 – we received mid-term report*
  - *Third project is to integrate data on the zooplankton time series obtained in the North Western Mediterranean sea by the Observatoire Océanologique of Villefranche sur Mer from 1966 – we received mid-term report*
  - *Fourth project is to integrate into EMODNet Biology Phytoplankton qualitative and quantitative data from the Romanian Black Sea coastal and shelf waters sampled between 1956 and 1960.*

## **WP5 – Creation of gridded abundance data products**

- Organization of the WP5 workshop, 29 July 2015

*A hand on workshop was organised to assess what data products could still be developed in order to fill some of the remaining gaps (i.e. mediterranean, seagrasses and macroalgae). A working plan to prioritize activities before the next reporting period has been drafted.*

- OOPS products

*The OOPS products for Copepod species have been calculated and are added to the geospatial data infrastructure providing WMS/WFS services of the gridded abundance of the 6 most abundant Copepod species, and the RATIO of Large versus Small Copepods. ICES is now analyzing how they could harvest these data services to make available through the ICES data portal.*

## **WP6 – Technical update EMODnet biological portal & link with other portals**

*The new portal launched previous month is up and running.*

*We are working on an extended search to select, not only by species group but also by other attributes, such as MSFD indicator species, protected species, species of economic importance. This will be implemented following weeks.*

*The EMODnet biology website has been made responsive. Responsive design means that the layout will adapt according to the device (smartphone, tablet...) that is used to visit the site.*

*Update of the EMODnet Biology page on the Central website.*

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

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*Please list specific problems you have encountered during this period, including related to technical and data provision issues*



## 5. User Feedback

List any useful feedback you received on your portal, your activities or those of other EMODnet projects/activities. Also provide any suggestions you have received for EMODnet case studies and/or future products/activities/events.

[Provide information in table - attach the documentation/full user feedback to the report]

Date	Name	Organization	Type of user feedback (e.g. technical, case study etc)	Response time to address user request
			<i>We were contacted to be stakeholder/enduser in European project proposal on blue crab <i>Callinectes sapidus</i> in South European waters, and aims at giving a multi-scale resolution of the blue crab fishery potential in this area, where is considered an invasive species, from fishing to processing and marketing as a shellfish product.</i>	<i>We agreed</i>
			<i>We contacted project partners of the Mediseh project, to make their data available through EMODnet</i>	<i>We are waiting for feedback</i>

## 6. Outreach and communication activities

Please list all the relevant communications activities or products you have developed/executed during this period (including presentations, lectures, trainings, demonstrations and development of communication materials such as brochures, videos, etc.). Relevant scientific and/or popular articles you know have been published using/referring to EMODnet should be reported under indicator 11 in Section 7.

[Provide information in table - Maximum 1 page]

Date	Media	Title	Short description and/or link to the activity
2 JULY 2015	Presentation	EMODnet	Presentation EMODnet at Conference "Marine Data: What role for Europe?" – with focus on MSFD
2 JULY 2015	Presentation	EMODnet biology	EMODnet-JRC seminar
2015-05-29	Digital news item	Renewed emodnet-biology.eu for an even better unlocking of European marine biodiversity data	News item on VLIZ website and in VLIZ digital newsletter <a href="http://vliz.be/en/news?p=show&amp;id=4174">http://vliz.be/en/news?p=show&amp;id=4174</a> <a href="http://www.vliz.be/docs/vlizine/vl_16_5.htm#2.2">http://www.vliz.be/docs/vlizine/vl_16_5.htm#2.2</a>

## 7. Updates on Progress Indicators

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*Using the indicator as a header list the metrics collated and the time interval. If there was no activity to report leave the section under the indicator header blank.*

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

<http://www.emodnet-biology.eu/code/rss.php>

11 new datasets available.

Zooplankton monitoring RADIALES - section off A Coruña (NW Spain,...  
Monday, June 15, 2015 3:29 PM  
This is a new entry with 4,903 records

Zooplankton monitoring RADIALES - section off Gijón (N Spain,...  
Monday, June 15, 2015 3:28 PM  
This is a new entry with 315 records

Zooplankton monitoring RADIALES - section off Santander (N Spain,...  
Monday, June 15, 2015 3:27 PM  
This is a new entry with 1,631 records

Zooplankton monitoring RADIALES - section off Santander (N Spain,...  
Monday, June 15, 2015 3:27 PM  
This is a new entry with 2,031 records

Zooplankton monitoring RADIALES - section off Santander (N Spain,...  
Monday, June 15, 2015 3:26 PM  
This is a new entry with 1,842 records

Zooplankton monitoring RADIALES - section off Vigo (NW Spain,...  
Monday, June 15, 2015 3:25 PM  
This is a new entry with 3,608 records

Zooplankton monitoring RADIALES - section off Vigo (NW Spain,...  
Monday, June 15, 2015 3:24 PM  
This is a new entry with 3,866 records

SHARK - Marine zooplankton monitoring in Sweden since 1979  
Monday, June 01, 2015 1:56 PM  
This is a new entry with 60,511 records

SHARK - Marine soft bottom macrozoobenthos monitoring in Sweden since...  
Monday, June 01, 2015 1:55 PM

This is a new entry with 233,584 records

SHARK - Marine phytoplankton monitoring in Sweden since 1983

Monday, June 01, 2015 1:45 PM

This is a new entry with 342,647 records

SHARK - Marine bacterioplankton monitoring in Sweden since 1989

Monday, June 01, 2015 1:43 PM

This is a new entry with 11,756 records

***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).***

Organisation	Country	Type	#
Instituto Español de Oceanografía (IEO)	Spain	Research	7
Swedish Meteorological and Hydrological Institute (SMHI)	Sweden	Research	4

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

- 197 Data downloads

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

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

Month	Unique visitors	Number of visits	Pages	Hits	Bandwidth
Jan 2015	1,326	2,764	13,901	28,730	965.37 MB
Feb 2015	1,409	2,641	15,155	26,926	1.67 GB
Mar 2015	1,681	3,287	14,961	37,505	1.38 GB
Apr 2015	1,563	3,060	16,519	38,574	1.38 GB
May 2015	1,717	2,881	14,972	99,518	2.81 GB
Jun 2015	1,386	2,783	12,117	95,319	2.31 GB
Jul 2015	1,060	2,508	9,171	61,184	1.53 GB

***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.)***

*Distinct categories*

- As a part of my PhD research I am mapping ecosystem services in estuaries, this data will allow me to map the food provisioning service.
- Bachelor Thesis
- check
- Data exploration as part of the Marine Ecosystem Research Programme funded by MERP.
- Data exploration for NERC-funded programme MERP
- Data exploration within the NERC and DEFRA funded MERP project
- environmental public awareness
- Exploratory joint data analysis
- Phd thesis research
- public awareness
- Resaerch; building community maps within Galway Bay
- Research
- Research - mechanistic modeling of zooplankton communities (master thesis project)

- Research PhD
- SMHI: SHARK data check.
- test
- testing for INSPIRE harmonization
- This is for exploratory analyses of benthos data, within the NERC and DEFRA funded project MERP
- To check the SHARK zooplankton dataset.
- use within NERC and DEFRA funded MERP project
- We study Atlantic cod (*Gadus morhua*) and European eel (*Anguilla anguilla*) as two economic important indicator species in order to assess the importance of estuarine (Western Scheldt) and coastal areas (Belgian part of the North Sea) as a key habitat for these species. The results of this study will be useful for management measures for the conservation and restoration of the eel and cod stocks. This is a collaboration between Ghent University and INBO in the context of LifeWatch.

***Indicator 11 - EMODnet visibility and citations (academic journals, scientific press, mainstream media, websites)***