



**EMODnet**  
European Marine  
Observation and  
Data Network

EMODnet Sea-basin Checkpoints Results  
**Habitats**

**EMODnet Stakeholder Conference & Sea-basin Workshops**  
14-15 February 2017

## **Habitats theme**

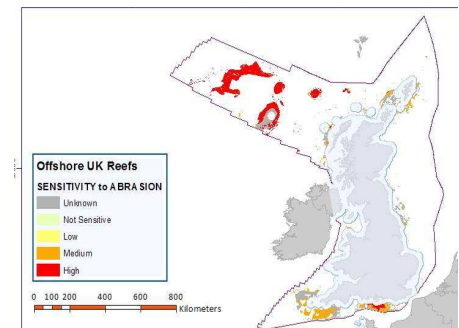
Jan-Bart Calewaert  
EMODnet Secretariat  
On behalf of all Checkpoints

<http://www.emodnet.eu/>



## Habitats?

- ⊙ **Ecological or environmental area where abiotic and biotic conditions allow particular species of animal, plant or other type of organism to live.**
  - *Not a biotope! → geographic area with uniform environmental conditions where certain biological communities live*
- ⊙ **Habitat information is important for sustainable management of the environment, including human activities**
- ⊙ **Habitat types classification – e.g. EU nature information system (EUNIS) → habitat maps**
- ⊙ **Seabed Habitat maps serve many purposes**
  - *design of ecologically coherent Marine Protected Area (MPA) networks*
  - *species distribution modelling*
  - *establishing monitoring programmes for seabed habitats*
  - *developing sensitivity maps & informing maritime spatial planning (MSP)*
  - *indispensable for MS to fulfil obligations under MSFD where full coverage of seabed predominant habitats of all European seas is required.*







## Checkpoints Results - General

- ◎ **Which checkpoints challenges require habitats data and maps most?**
  - *Marine Protected Areas - coherence*
  - *Windfarm siting – sensitive habitats at target locations?*
  - *Oil platform spill → likely hood that sensitive habitats (coastal or other) would be affected*
  - *Fisheries impact → extent of fisheries impact on the sea floor*
- ◎ **EMODnet provides a pan-European broadscale habitat map covering all sea-basins**
- ◎ **Arctic:**
  - Some habitat information for specific Arctic parts of the Northeast Atlantic are available via different European initiatives, e.g. EUNIS and MAREANO project



## Checkpoints Results – General (2)

### ⊙ Atlantic:

- We need **better availability of habitat-related sample point data**: *except for UK Marine recorder UK and Irish waters, such data are difficult or impossible to access elsewhere.*
- **Lack of habitat maps giving full biological detail** (i.e. maps from surveys), even in the coastal zone. EMODnet broadscale map provides full coverage but with insufficient thematic resolution.
- **Many deep sea offshore habitats are under-studied and poorly inventoried.**
  - ✓ lack of consistent, region-wide surveys of biological data on marine species across taxa and trophic groups.
  - ✓ especially the abyssal plain is under-represented, with available biological data being more restricted to surface or shallow water regions in and around coastal areas



## Checkpoints Results – General (3)

### ◎ **Black Sea**

- availability of data/info on habitat extent is only “partly adequate” in terms of data delivery mechanisms, easy to find, INSPIRE services and pricing, and “not adequate “ in terms of responsiveness.

### ◎ **Mediterranean**

For habitat characterization and habitat extent input datasets (e.g. *Posidonia oceanica*, Coralligenous and Maerl habitats)

- availability of datasets are “not adequate” in terms of pricing, data delivery mechanisms and responsiveness.
- appropriateness if the datasets is “partly adequate” TO “not adequate” – in particular temporal coverage as well as vertical coverage, horizontal and temporal validity are “not adequate”.



## Assessing fisheries impact

### ⊙ Arctic

- **habitat information could be obtained from various sources:** *e.g. working groups within the Arctic Council provide some kind of information on important areas within the Arctic area.*
- Due to privacy issues **high-spatial resolution data on fishing impact is not readily available** for general use.
- Specific organisations that were addressed to identify accessible data did not reply.
- Coding of the presented unit of effort data is not always clear, making it not possible to use the data.
- Information on fishing impact is scarce and mostly on low-spatial level resolution → **it was not possible to generate an overall overview of fishing impact in the Arctic area.**



## Fisheries impact (2)

### ⊙ Atlantic

- comprehensive/recent datasets on bottom fishing effort and intensity are a series of **maps generated in 2016 by the ICES Working Group on Spatial Fisheries Data (WGSFD)** from VMS data coupled with log book data. Maps cover the OSPAR area from 2009 onwards and their resolution 0.05 degrees (~5 km).
- To assess fisheries impact on seabed habitats, **this resolution is significantly lower than that of the broadscale habitat maps provided by the EMODnet Seabed Habitat lot (250m).**
- Quality assurance is non-existent and this needs to be rectified.

### ⊙ Baltic

- Fisheries data (VMS-data) are spatially and temporally restricted, they are only available at a scale of grid-cell size of approx. 10 km x 5km for the years 2009-2013 yearly.
- For fishery impact assessment, **species data are considered available and adequate, but variable in quality**, e.g., variable prediction confidence in modelled data and substantial extrapolations due to lack of ecological data in some areas.





## Assessing fisheries impact (3)

### ⊙ Mediterranean

#### ■ VMS maps

- ✓ only cover EU MS but data is not available for some countries and only partially available for other MS.
- ✓ Time series do not always cover the same period in the different countries.
- ✓ Greatest limitation: incomplete spatial and temporal coverage of the data sets. As a result the **change of the level of disturbance of trawling on the seabed could only be calculated on a short time period.**

#### ■ AIS data

- ✓ have higher spatial coverage than VMS data (incl. also non-EU vessels)  
→ while in available time period there are no data for a part of the fishing fleets (obligations were gradually extended over the years) they allow to get a more spatial complete coverage of the overall Mediterranean basin compared to VMS.