EMODnet

“unlocking, and offering access to, European marine data”

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EMODnet gives access to a range of data archives across 7 themes
7+1 geoportals

www.emodnet.eu
www.emodnet-bathymetry.eu
www.emodnet-geology.eu
www.emodnet-seabedhabitats.eu
www.emodnet-chemistry.eu
www.emodnet-biology.eu
www.emodnet-physics.eu
www.emodnet-humanactivities.eu
Data Products

- Bathymetry: Data on bathymetry (water depth), coastlines, and geographical location of underwater features such as wrecks.
- Seabed habitats: Data on modelled seabed habitats based on seabed substrate, energy, biological zone and salinity.
- Physics: Data on salinity, temperature, waves, currents, sea level, light attenuation and FerryBox data.
- Chemistry: Data on concentrations of chemicals (pesticides, heavy metals, antifoulants) in water, sediments and biota.

Data Services

- Geology: Data on seabed substrate, seafloor geology, coastal behaviour, geological events and probabilities, and minerals.
- Biology: Data on temporal and spatial distribution of species abundance and biomass from several taxa.

Data

Metadata

EMODnet Central Portal www.emodnet.eu
Data visualisation

INSPIRE Web Map Service (WMS)

The EMODnet data layers (Data products) are available as a Web Map Service (WMS) in accordance with the Open Geospatial Consortium (OGC) specifications (www.opengeospatial.org). The geo-referenced data layers can be displayed in a Geographic Information System (GIS) or incorporated in your own Web application (Openlayer, Leaflet, etc.).

Accessing the EMODnet WMS services

The EMODnet WMS is accessible from 7 thematic portals at the Pan-European scale or global scale for some specific data products. Enter one of the following URLs (Uniform Resource Locator) into your WMS client (QGIS, ArcMap, Mapinfo etc.):

- EMODnet Bathymetry: http://www.emodnet-bathymetry.eu/wms
- EMODnet Biodives: http://www.emodnet-biodives.eu/wms
- EMODNET Chemistry - Concentration maps by sea region: http://www.emodnet-chemistry.eu/wms
- EMODNET Chemistry - Concentration maps by parameter: http://www.emodnet-chemistry.eu/wms
- EMODnet CTD: http://www.emodnet-ctd.eu/wms
- EMODnet Marine litter: http://www.emodnet-marinelitter.eu/wms
- EMODnet Geology: http://www.emodnet-geology.eu/wms
- EMODnet Seabed habitats: http://www.emodnet-seabedhabitats.eu/wms

Table 1: List of EMODnet WMS services

EMODnet service requests

The EMODnet WMS supports the GetCapabilities, GetMap and GetFeatureInfo operations as defined in the OGC WMS standard (version 1.3.0, 1.1.1, ...).

WMS GetCapabilities

http://[url]/?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities or http://[url]/?SERVICE=WMS&VERSION=1.1.1&REQUEST=GetCapabilities

Example of a "GetCapabilities" request addressed to the EMODnet Physics view service:

http://www.emodnet-physics.eu/wms/ems/ems?SERVICE=WMS&VERSION=1.3.0&REQUEST=GetCapabilities

WMS GetMap

Using the information given in the GetCapabilities request, the GetMap request returns a "map" containing the requested data layer selected from all the available layers as defined in the XML document. The elements such as the data layer, region, projection, size of the returned image, image format, etc. are defined in the form of arguments.

Download services

Predefined download

Direct download of data and data products in various formats (Shapefile, GeoTIFF, netCDF, etc.) are always available from the EMODnet portals:

| EMODnet Bathymetry          | http://www.emodnet-bathymetry.eu             |
| EMODnet Biodives            | http://www.emodnet-biodives.eu               |
| EMODNET Chemistry - Data download tool box | http://www.emodnet-chemistry.eu/download/geoapiexceptions |
| EMODNET Chemistry - CTD Data Discovery and access service | http://www.emodnet-chemistry.eu/ctd-service |
| EMODnet Geology             | http://www.emodnet-geology.eu                |
| EMODnet Human activities     | http://www.emodnet-humanactivities.eu        |
| EMODnet Physics - ERDAS service | http://www.emodnet-physics.eu/erdas-service |
| EMODnet Seabed habitats      | http://www.emodnet-seabedhabitats.eu         |

Table 2: List of EMODnet direct download services

Direct download

INSPIRE Web feature service (WFS)

The EMODnet data layers are available as a Web Feature Service (WFS) in accordance with the Open Geospatial Consortium (OGC) specifications (www.opengeospatial.org). WFS defines a standard for exchanging vector data by querying both the data structure and the source data. The basic operations are GetCapabilities, DescribeFeatureType, and GetFeature. WFS supports a variety of WFS output formats (Ex: GML, shapefile, json, geoson, CSV, ...). The full list of output formats supported can be found by performing a WFS GetCapabilities request.

Accessing EMODnet WFS services

| EMODnet Bathymetry          | http://www.emodnet-bathymetry.eu/wfs          |
| EMODnet Biodives            | http://www.emodnet-biodives.eu/wfs            |
| EMODNET Chemistry - Occurrence data | http://www.emodnet-chemistry.eu/wfs          |
| EMODNET Chemistry - Marine litter | http://www.emodnet-chemistry.eu/wfs          |
| EMODnet Geology             | http://www.emodnet-geology.eu/wfs             |
| EMODnet Human activities     | http://www.emodnet-humanactivities.eu/wfs     |
| EMODnet Seabed habitats      | http://www.emodnet-seabedhabitats.eu/wfs      |

Table 3: List of EMODnet WFS services
Coming soon:
Pan-European coastline-migration map based on satellite data 2007-2016

http://www.emodnet-geology.eu/comingsoonpaneurpeancoastlinemigrationmap/
www.EMODnet-geology.eu
DATA on physical parameters related to

waves

**water temperature**

water salinity

currents

optical properties

**sea level**

atmosphere

water conductivity / biogeochemistry

winds

river runoff

...
Latitude: 58.17° N

CMEMS - CORIOLIS DELAYED MODE ANALYSIS RELEASE (CORALIS 5.0) FULL TIME SERIES

Value: 9.35° C
Select elevation:
-0.0
-3.0
-5.0
-10.0
-15.0
-20.0
-25.0
-30.0
-35.0
-40.0
-45.0
-50.0
-55.0
-60.0
-65.0
-70.0
-75.0
-80.0
-85.0
-90.0
-95.0

SEADATANET
- ALL REGION
  Web Map Service (WMS): GetCapabilities link
- ARCTIC
  Metadata: Metadata link
- ATLANTIC
  Metadata: Metadata link
- BALTIC
  Metadata: Metadata link
- BLACKSEA
  Metadata: Metadata link
- MEDITERRANEANSEA
  Metadata: Metadata link
- NORTHEAST
  Metadata: Metadata link

CMEMS
- CORIOLIS DELAYED MODE ANALYSIS RELEASE (CORALIS 5.0) FULL TIME SERIES
  Metadata: Metadata link
  Web Map Service (WMS): GetCapabilities link
Gridded abundance map of Gadus morhua. The map shows clearly the dramatic stock depletion of the last decades in the North Sea.

Time series
Atlantic Copepod abundance timeseries

Species
- Acartia spp
- Acartia spp
- Calanus finmarchicus
- Calanus helgolandicus
- Metridia lucens
- Temora longicornis
- Oithona spp
- Large copepods
- Large/Small copepod ratio

Timeseries
- Data
- Seasonal
- Trend
- Remainder


time
Coming soon!

Vessel density map

Release on 11 March 2019
Stay tuned on emodnet.eu!
Good luck!

and hope to see you too at …
opensealab.eu

Sept. 2019 - a hackathon to explore open marine data organised by EMODnet in partnership with Marine Copernicus & ICES