



Product portfolio and data access

Copernicus Marine Environment Monitoring
Service



OVERVIEW OF THIS CMEMS SUBMODULE

- **Information about Copernicus Marine Environment Monitoring Service (CMEMS) products:**
 - Presentation of the Copernicus Marine Environment Monitoring Service website.
 - Presentation of the different types of data you can find on CMEMS website.
 - Browsing CMEMS online catalogue and access to specific types of products
 - How to access and download data from the CMEMS service through the online portal
 - How to visualize the downloaded products
- **Use case:**
 - **We want to download temperature data along the Irish coast for fishery activities**
 - We will show you how to access and download this data from **CMEMS: The Copernicus Marine Environmental Monitoring Service**



Marine
Monitoring

CMEMS Website

- **Website Copernicus Marine Service:** <http://marine.copernicus.eu/>
- **Implemented by Mercator Océan**
- **Data Policy: full, free and open access**

Search & Browse



- 151 products
- Global ocean and 6 regional seas

Discover & Visualise



- Visualise/analyse data
- Access info

Register



Download



- Download
- One-off or by scripts

Compute



- Use data
- Integrate
- Merge

Join Up



- Get trained
- Get inspired
- Meet partners



- Both **Public and Private users** need response to today's climate and marine challenges.
- The Copernicus Marine Environment Monitoring Service provides **regular and systematic** core reference information on the **state of the physical oceans and regional seas**. The observations and forecasts produced by the service support all marine applications:
 - **Marine safety**
 - **Marine resources**
 - **Coastal and marine environment**
 - **Weather, seasonal forecasting and climate.**



CMEMS Products Overview

- CMEMS is the **one stop shop** for all the Copernicus marine data.
- On CMEMS website, you can find all the **151 products**:
- **Sea Surface Temperature**
 - Different area (Global, Black sea, Mediterranean Sea...)
 - Different resolution (more or less precise)
 - Different sources: altimetry (“reanalysis”), model (“forecast”), in-situ...
- **Sea Salinity**
- **Sea Surface Height**
- **Velocity**
- **Sea Ice**
- **Wind**
- **Plankton**
- **Oxygen**
- ...



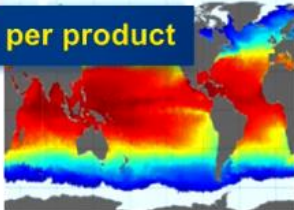
Discover and search for CMEMS products

marine.copernicus.eu/web/59--interactive-catalogue.php?option=com_csw&view=details&product_id=GLOBAL_ANALYSIS_FORECAST_PHYS_001_002


GLOBAL OCEAN 1/12° PHYSICS ANALYSIS AND FORECAST UPDATED DAILY


Metadata provided by MYOCEAN
Credits: myocean


One URL per product





BACK TO SEARCH

ADD TO CART 

VIEW PRODUCT 

DOWNLOAD PRODUCT 

INFORMATION   **DOCUMENTATION** **SERVICES**

PRODUCT IDENTIFIER GLOBAL_ANALYSIS_FORECAST_PHYS_001_002

OVERVIEW

The Operational Mercator global Ocean analysis and forecast system – at 1/12 degree - is providing 7 days of 3D global ocean forecasts updated daily and ocean analysis updated weekly. The time series start on January 1st 2013 and is aggregated in time in order to reach a two full year's time series sliding window. This product includes daily mean files of temperature, salinity, currents, sea level and ice parameters from the top to the bottom of the Ocean over the Global Ocean. It also includes 2-hourly mean surface fields for temperature, salinity and currents.

VARIABLES

- sea_ice_area_fraction
- sea_ice_thickness
- sea_ice_x_velocity
- sea_ice_y_velocity
- sea_surface_height_above_sea

NO NEED TO BE REGISTERED TO READ PRODUCT INFORMATION

FULL OVERVIEW

01:20,92



In our Use case, that means:

- Select the area and the parameter of interest : “European North West Shelf Seas” and “Temperature”
- Select your product: « Northwestshelf analysis and forecast »
- Various criteria:
 - Overview, Variables, Characteristics (geographical coverage, spatial resolution, vertical coverage, temporal resolution ...) → Opportunity to download them in .pdf or .xml formats
- Documentation:
 - Product user manual
 - Quality information document



marine.copernicus.eu/services-portfolio/access-to-products/

CATALOGUE PDF

FIRST VISIT ?

MY CART



My Account

⑦

TYPE YOUR SEARCH

REGIONAL DOMAIN

All areas

PARAMETERS

TEMPORAL COVERAGE

From 1992-01-01 To 2017-11-02

☐ If checked, the search results will only show products containing the whole selected time range

PRODUCT WITH DEPTH LEVEL

Found **152 products** matching your criteria.

GLOBAL_ANALYSIS_FORECAST_PHY_001_024

GLOBAL OCEAN 1/12° PHYSICS ANALYSIS AND FORECAST UPDATED DAILY

MODEL



GLO

S SIUV MLD SIT SSH 3DUV bottomT SIC T ⓘ

0.083 degree x 0.083 degree (50 depth levels)

From 2006-12-27 to Present

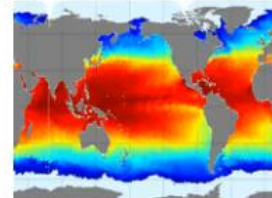
monthly-mean, daily-mean, hourly-mean

**MORE
INFO**

ADD TO
CART

WM

Sub-setting



GLOBAL_ANALYSIS_FORECAST_BIO_001_014

GLOBAL OCEAN BIOGEOCHEMISTRY ANALYSIS AND WEEKLY FORECAST

MODEL



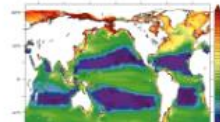
GLO

NO3 PP O2 PO4 SI CHL FE PHYC ⓘ

0.5 degree x 0.5 degree (50 depth levels)

From 2012-01-01 to Present

weekly-mean





CMEMS product: Download the product

- I want to download the product ...

The screenshot displays the CMEMS ONLINE CATALOGUE interface. On the left, a sidebar titled 'YOUR SEARCH' contains filters for REGIONAL DOMAIN (European North-West Shelf Seas), PARAMETERS (Temperature), TEMPORAL COVERAGE (From 1992-01-01 to 2017-11-06), and PRODUCT WITH DEPTH LEVEL. The main content area shows 'Found 8 products matching your criteria.' Two product entries are visible:

- NORTHWESTSHELF_ANALYSIS_FORECAST_PHYS_004_001_B**
ATLANTIC - EUROPEAN NORTH WEST SHELF - OCEAN PHYSICS ANALYSIS AND FORECAST
MODEL: 3DUV SSH T S bottomT MLD
Resolution: 0.067 degree x 0.111 degree (24 depth levels)
Time range: From 2014-04-01 to Present
Frequency: daily-mean, hourly-instantaneous
Map: A map of the North Atlantic and European North-West Shelf showing temperature and sea surface height.
- NORTHWESTSHELF_REANALYSIS_PHYS_004_009**
ATLANTIC - EUROPEAN NORTH WEST SHELF - OCEAN PHYSICS REANALYSIS FROM METOFFICE (1985-2014)
MODEL: S T 3DUV MLD bottomT
Resolution: 0.067 degree x 0.111 degree (24 depth levels)
Time range: From 1985-01-01 to 2014-06-30
Frequency: monthly-mean, daily-mean
Map: A map of the North Atlantic and European North-West Shelf showing temperature and sea surface height.

- ... To perform this step, the registration to CMEMS is needed !



CMEMS product: Show the product

- With Google Earth
- With a picture (PNG)

