Ocean-based Negative Emission Technologies

Deliverable Title	D8.2 Ready to use implementation of project's data portal with catalogue for findability, common services (SFTP, OPeNDAP) and persistent identifier for accessibility and interoperability
Lead	GEOMAR Helmholtz Center for Ocean Research Kiel
Related Work Package	WP 8: Data management
Related Task	Task 8.1 Data Actions
Author(s)	Lisa Paglialonga, Carsten Schirnick
Prieto Dissemination Level	Public
Due Submission Date	31. December 2020
Actual Submission	18. December 2020
Project Number	869357
Start Date of Project	01. July 2020
Duration	48 months
Abstract: This document describes the GEOMAR data portal used by the data management team to make data openly accessible that do not fit into a specialized repository.

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Deliverable D8.2 Data Portal by Data Management

OceanNETs data that do not fit thematically into a specialized repository (like for e.g. PANGAEA) will be made openly accessible via GEOMAR's data portal <https://data.geomar.de>. Data is uniquely identifiable via assignment of persistent identifiers (PID) and handles and then accessible per download or data-centric services where applicable (e.g. gridded data). An OPeNDAP and WMS service provides advanced data access to scientific geo-referenced datasets (netCDF, HDF, GRIB, etc.). Persistent identifiers assigned to data and metadata at different processing levels (raw data, calibrated data, data products) help to make the data workflow reproducible, especially if the data handling can be documented by adding calibration routines or analysis scripts. Assigned handles link to a landing page guiding users and machines to downloads (see Figure 1), OPeNDAP and web map services (see Figure 2). Datasets supplemental to journal articles (from discussion and peer-review to publication) are interlinked with GEOMAR's OceanRep and its Ocean Science Information System (OSIS) for findability (see Figure 3).

OSIS ensures linkage between authors, their data and publications. It is publicly accessible and can be utilized by all project participants. OSIS allows structured geo-referenced data upload (including versioning options) in the context of the project's field campaigns, experiments or numerical simulations and either sharing data with access restrictions applied during the project's term and openly accessible afterwards. The metadata (Dublin Core) are publicly accessible immediately. The immediate visibility of metadata fosters communication within scientific communities while safeguarding the integrity of the scientific data until and after publication. Contact information for access requests to data files are provided. OSIS is embedded into OceanNETs internal website (<https://portal.geomar.de/group/oceannets/>) for quick and simple access.

Figure 1: Example landing page accessible via handle for a supplementary data set making files openly accessible for download and providing links to OPeNDAP and WMS services (via THREDDS server at bottom of page).

hdl:20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7

powered by h5ai

Supplementary Dataset

Handle ID Related Publication OceanRep THREDDS ISO XML

Handle for this dataset:

hdl:20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7

Please cite this dataset as:

Keller, David P., Lenton, Andrew, Scott, Vivian, Vaughan, Naomi E., Bauer, Nico, Ji, Duoying, Jones, Chris D., Kravitz, Ben, Muri, Helene, and Zickfeld, Kirsten (2018). *Supplementary Data to "The Carbon Dioxide Removal Model Intercomparison Project (CDRMIP): rationale and experimental protocol for CMIP6"* [Supplementary Dataset]. [hdl:20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7](https://doi.org/10.5194/gmd-11-1133-2018)

Copy Data Citation

Supplement to (Open Access):

Keller, David P., Lenton, Andrew, Scott, Vivian, Vaughan, Naomi E., Bauer, Nico, Ji, Duoying, Jones, Chris D., Kravitz, Ben, Muri, Helene, and Zickfeld, Kirsten (2018). *The Carbon Dioxide Removal Model Intercomparison Project (CDRMIP): rationale and experimental protocol for CMIP6. Geoscientific Model Development*, 11, 1133-1160. [doi:10.5194/gmd-11-1133-2018](https://doi.org/10.5194/gmd-11-1133-2018)

The above information originates from https://oceanrep.geomar.de/cgi/record/39137/DAI_EP3/geomar-ep3-39137.txt

Data

Name	Last modified	Size
CDR-MIP_GMD_2018_UVic_code_and_data	2018-01-29 15:01	3.6 GB
CSIRO_Mk3L-COAL_source_code	2018-01-29 15:30	704.7 MB
f1bf7044-a12a-45a1-89dd-3740d60ca0d7.metadata.xml	2020-10-16 14:41	33 KB
f1bf7044-a12a-45a1-89dd-3740d60ca0d7.simple-metadata.json	2020-12-11 10:38	8 KB

Filter/Search files and folders:

Click filter icon at window top to filter displayed files/folder only on current page. Click search icon at window top to search all files and (sub)folders by pattern. Use prefix "re:" for JavaScript regular expressions, e.g. "re:.nc" to search for all netCDF files with ".nc" extension. Space separated sequences get OR-ed.

Machine-actionable services:

THREDDS:
<https://hdl.handle.net/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7@thredds>
ISO XML Metadata:
<https://hdl.handle.net/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7@metadata>

GEOMAR Data Management Portal OceanRep PANGAEA

Imprint

Figure 2: Various access links for example data set (OPeNDAP, WMS etc.)

GEOMAR THREDDS Server

THREDDS Data Server

Catalog https://data.geomar.de/thredds/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/catalog.html

Dataset: data/A_aggfor.nc

- Data format: netCDF
- Data size: 12.24 Kbytes
- Data type: GRID
- ID: 20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc

Access:

1. **OPeNDAP**: [/thredds/dodsC/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc](https://thredds.dodsC/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc)
2. **DAP4**: [/thredds/dap4/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc](https://thredds/dap4/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc)
3. **WMS**: [/thredds/wms/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc](https://thredds/wms/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc)
4. **ISO**: [/thredds/iso/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc](https://thredds/iso/20.500.12085/f1bf7044-a12a-45a1-89dd-3740d60ca0d7/CDR-MIP_GMD_2018_UVic_code_and_data/UVic_CDR-MIP_C1_model_run/data/A_aggfor.nc)

Dates:

- 2018-01-29T13:53:04Z (modified)

Viewers:

- Godiva2 (browser-based)
- NetCDF-Java ToolsUI (webstart)
- Integrated Data Viewer (IDV) (webstart)

Figure 3: Screenshot of OceanNETs' internal website with OSIS embedded

OCEAN NETS Internal Website

HOME DOCUMENTS EU REQUIREMENTS DELIVERABLES NETS-WIKI PUBLICATIONS DATA CONTACTS MEMBERS

Overview Expeditions Numerical Models Experiments More...

Context: OceanNETs

Paglialonga, Lisa (lpaglialonga@geomar.de) / Version 4.2r1060 - Logout

OSIS Ocean Science Information System for Expeditions, Numeric Models, Experiments...

View Terms of Use

My Deliverables

Expedition	Name	Flag	Due

Latest links

Type	Description	Linked to
Open Data Repository	Data archived in PANGAEA	Leg: AL516
Print Publication	Development of a purge+trap system for the quantification of methane variability in the Baltic Sea	Leg: AL510
Print Publication	The methane distribution around the Macaronesian Islands in the North East Atlantic Ocean	Cruise: POS533
Print Publication	In situ observations show vertical community structure of pelagic fauna in the eastern tropical North Atlantic off Cape Verde	Leg: MSM49
DSHIP	DSHIP Sensor data available at BSH	Leg: MSM96
Print Publication	Formation pathways of light hydrocarbons in deep sediments of the Danube deep-sea fan, Western Black Sea	Leg: M142
Print Publication	Observed transport variability of the Atlantic Subtropical Cells and their connection to tropical sea surface temperature variability	Leg: M145
Print Publication	Observed transport variability of the Atlantic Subtropical Cells and their connection to tropical sea surface temperature variability	Leg: M130