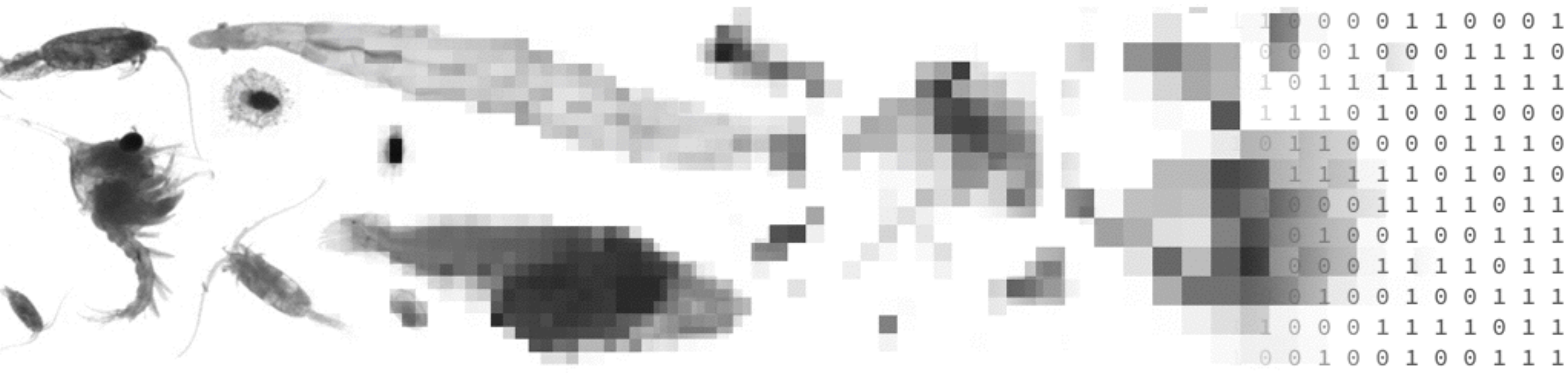




Traitement, sauvegarde et diffusion des données

Banques de données et démarche qualité



Traitement des données

taxa 1 + env

modèle de niche (NPPEN, MaxEnt, etc.), diversité taxinomique, phylogénétique

taxa 1/0 + env

relations probabilité de présence - environnement (régression logistique, BRT, etc.)

taxa n (\pm temps)

composition des communautés, indices de diversité

taxa n + env (\pm temps)

relations écologiques abondance - environnement (PCA, CA, GLM, GAM, BRT, etc.)

taille, volume + env (\pm taxa)

approche par traits fonctionnels, diversité fonctionnelle

Bases de données

Générales, internationales

<http://www.iobis.org>

<http://www.iobis.org/mapper/1> (n, env)

Zooplankton, internationales

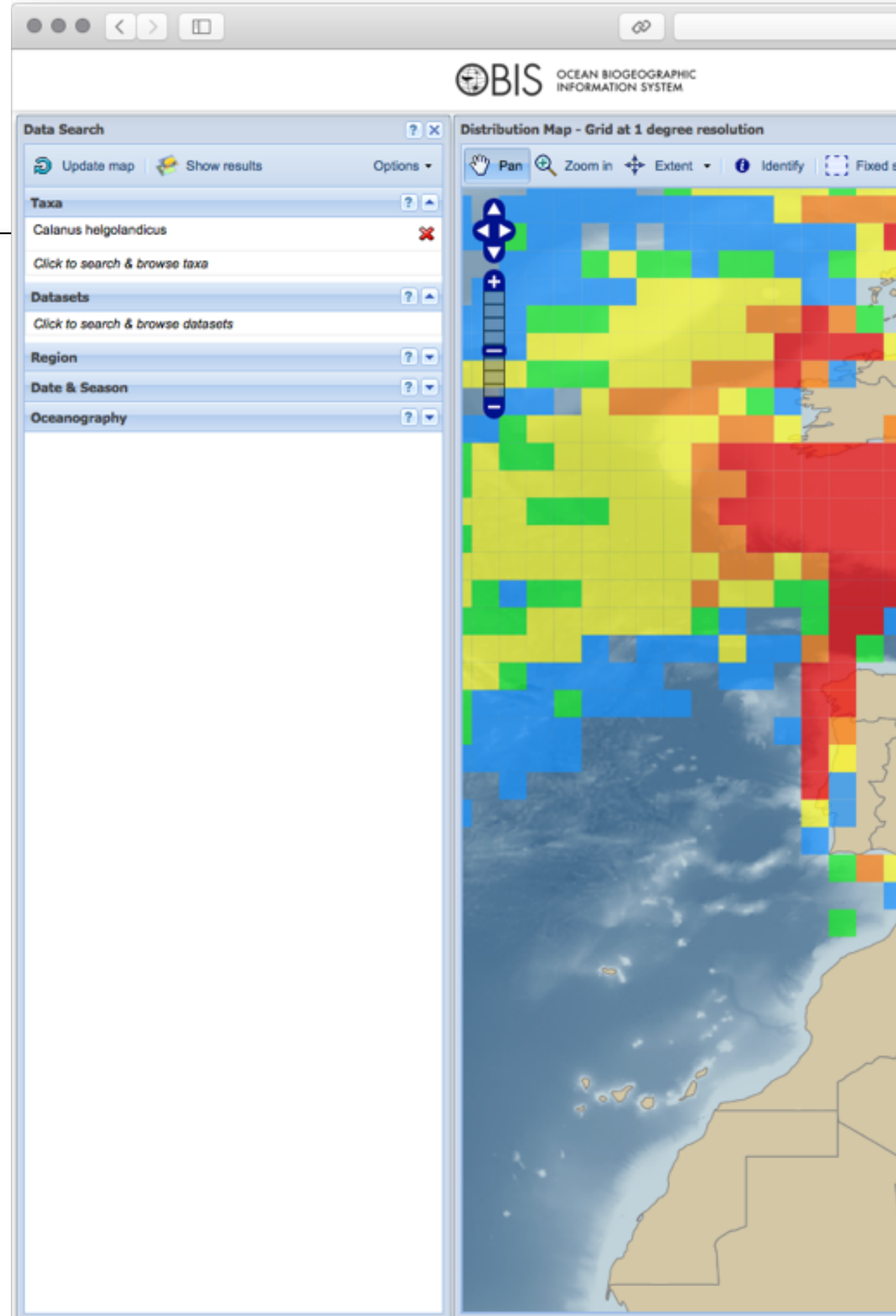
<http://www.st.nmfs.noaa.gov/copepod/>

<http://www.st.nmfs.noaa.gov/copepod/time-series/>
n, volume, env mais ancien

Zooplankton, spécifiques

CPR <https://www.sahfos.ac.uk>

Villefranche <http://ecotaxa.obs-vlfr.fr>
n (forme)



Bases de données

Générales, internationales

<http://www.iobis.org>

<http://www.iobis.org/mapper/>
1 (n, env)

Zooplancton, internationales

<http://www.st.nmfs.noaa.gov/copepod/>

<http://www.st.nmfs.noaa.gov/copepod/time-series/>

n, volume, env mais ancien

Zooplancton, spécifiques

CPR <https://www.sahfos.ac.uk>

Villefranche <http://ecotaxa.obs-vlfr.fr>
n (forme)

www.st.nmfs.noaa.gov/copepod/

COPEPOD
The Coastal & Oceanic
Production, & Observ
Database

NMFS Office of Science & Technology | Marine Ecosystems Division

--> Quick Start <--
(Start here! Read me first)

COPEPOD
The Global Plankton Database

- About COPEPOD
(general information)
- Plankton Database
(individual data sets)
- Plankton Data Products
(mean fields and atlases)
- Methods & More
(methods and code tables)

COPEPODITE
Time Series Data & Tools

- About COPEPODITE
(general information)
- Time Series Metabase
(a global directory of time series)
- Time Series Toolkit
(online data analysis tools)

NAUPLIUS
Ecosystem Data & Visualization

- About NAUPLIUS
(general information)

COPEPOD: Plankton-related Data Products

Average zooplankton Total Carbon M

The Coastal & Oceanic Plankton Ecology, Production & Observation Database (COPEPOD) is a global database of plankton-related data, including abundance, biomass, and composition data compiled from a global assortment of COPEPOD's online zooplankton and phytoplankton data content ranges from local to global scales, each accessible via a variety of search options, and each content summaries. COPEPOD also offers a variety of pre-generated data compilations at regional, basin, and global scales.

The sub-project **COPEPODITE** features a time series metabase and an interactive time series explorer for a variety of time series data.

The sub-project **NAUPLIUS** features an interactive spatial data explorer for a variety of spatial data.

National Marine Fisheries Service | National Oceanic & Atmospheric Administration | U.S. Department of Commerce

Contact Us (The COPEPOD Project) | Privacy Policy | Information Quality Guidelines | External Links

Bases de données

Générales, internationales

<http://www.iobis.org>

<http://www.iobis.org/mapper/1> (n, env)

Zooplancton, internationales

<http://www.st.nmfs.noaa.gov/copepod/>

<http://www.st.nmfs.noaa.gov/copepod/time-series/>

n, volume, env mais ancien

Zooplancton, spécifiques

CPR <https://www.sahfos.ac.uk>

Villefranche <http://ecotaxa.obs-vlfr.fr>
n (forme)

www.st.nmfs.noaa.gov/copepod/time-series/index-zts.htm

Zooplankton Time Series

in collaboration with IOU/UNESCO-IGMETS ICES-WGZE SCOR

World Zooplankton Map < COPEPODITE

WG125

"Zooplankton-TS" COPEPOD / IGMETS / WGZE

Click labels (to right) to show maps for [**Zooplankton** | **Phytoplankton** | **Hydrographic**]

The Circle symbols above link to sites with this current variable set. Click on any symbol to see a summary of the time series data.
Diamonds indicate time series that do not have this current variable set. Stars indicate estuarine time series that may or may not have this current variable set.

You can also search through a listing of time series sorted by associated Country or sorted by Variable (or both).

GLOBAL [**Zooplankton** | **Phytoplankton** | **Hydrographic** | Estuarine]

North Atlantic [**Zoo** | **Phy** | **Hyd** | Est | CPR] South Atlantic [**Zoo** | **Phy** | **Hyd** | Est]

North Pacific [**Zoo** | **Phy** | **Hyd** | Est] South Pacific [**Zoo** | **Phy** | **Hyd** | Est]

North America [**Zoo** | **Phy** | **Hyd** | Est] Mediterranean Sea [**Zoo** | **Phy** | **Hyd** | Est]

Baltic Sea (focus) [**Zoo** | **Phy** | **Hyd** | Est] North Sea (focus) [**Zoo** | **Phy** | **Hyd** | Hyd]

The plankton time-series presented in the *Time Series Metabase* (METABASE) come from COPEPOD's ongoing data management and time series analysis support for SCOR working groups **WG125** / **WG137**, ICES working groups **WGZE** / **WGPME**, and the IOU/UNESCO **IGMETS**.

Bases de fichiers, campagnes

<https://www.pangaea.de>

<https://www.pangaea.de/?q=zooplankton>

<https://www.pangaea.de/?q=maredat>

<http://www.seanoe.org/search>

<http://www.seanoe.org/data/00326/43749/>

The screenshot shows the PANGAEA website interface. At the top, there is a search bar with the query 'zooplankton' and a search button. Below the search bar, there are navigation tabs for 'ALL TOPICS'. The main content area is divided into two columns. The left column contains filter options: 'Filter by...' with a search box, 'Dataset Author' (listing BODC, OMEX Project Members, Smith, Walker O Jr, Lowry, Roy K, Piontkovski, Sergey, Picheral, Marc, Gorsky, Gabriel, Stemmann, Lars, and more...), 'Dataset Publication Year' (with checkboxes for years 2016 to 2009 and more...), 'Topic' (listing Oceans, Oceanography, Biological Classification, Animalia, Arthropoda, Crustacea, Copepoda, Chordata, and more...), and 'Project' (listing JGOFS, AESOPS, OMEX, and PROOF). The right column displays the search results, showing '6418 datasets found on search for »zooplankton'. Below this, there are pagination controls (1-10) and a list of five search results, each with a title, size, and DOI link.

PANGAEA.

ALL TOPICS zooplankton

Filter by...

6418 datasets found on search for »zooplankton

< 1 2 3 4 5 6 7 8 9 10 >

- Koski, MK; Pankoke, LM (2015):** Zooplankton cruise M87/1 in April 2012
Size: 1921 data points
doi:10.1594/PANGAEA.848481 - Score: 7.48 - Similar datasets
- Koski, MK; Pankoke, LM (2015):** Zooplankton M87/1 in April 2012
Size: 1712 data points
doi:10.1594/PANGAEA.848480 - Score: 7.43 - Similar datasets
- Vinogradov, ME; Sazhin, AF (1978):** Vertical biomass in the Sea of Japan
Supplement to: **Vinogradov, ME; Sazhin, AF (1978):** Vertical biomass of zooplankton in the northern part of the Sea of Japan
Size: 2 datasets
doi:10.1594/PANGAEA.755350 - Score: 6.66 - Similar datasets
- Koski, MK; Pankoke, LM (2015):** Zooplankton cruise M87/1 in April 2012
Size: 1048 data points
doi:10.1594/PANGAEA.848349 - Score: 6.65 - Similar datasets
- Hirche, H-J; Laudien, J; Buchholz, F (2015):** Net zooplankton aggregations in Kongsfjorden with link to image of zooplankton sensor MOKI
Supplement to: **Hirche, H-J; Laudien, J; Buchholz, F (2015):** Net zooplankton aggregations in Kongsfjorden: implications for zooplankton biology
Related to: **Laudien, J (2014):** Sea-bottom video in Kongsfjordneset in 2009. *Alfred Wegener Institute for Polar and Marine Research, Bremerhaven*
Laudien, J; Fleury, D (2015): Sea-bottom video in Kongsfjordneset in 2009. *Alfred Wegener Institute for Polar and Marine Research, Bremerhaven*
Size: 666 data points
doi:10.1594/PANGAEA.840353 - Score: 6.55 - Similar datasets

Bases de fichiers, campagnes

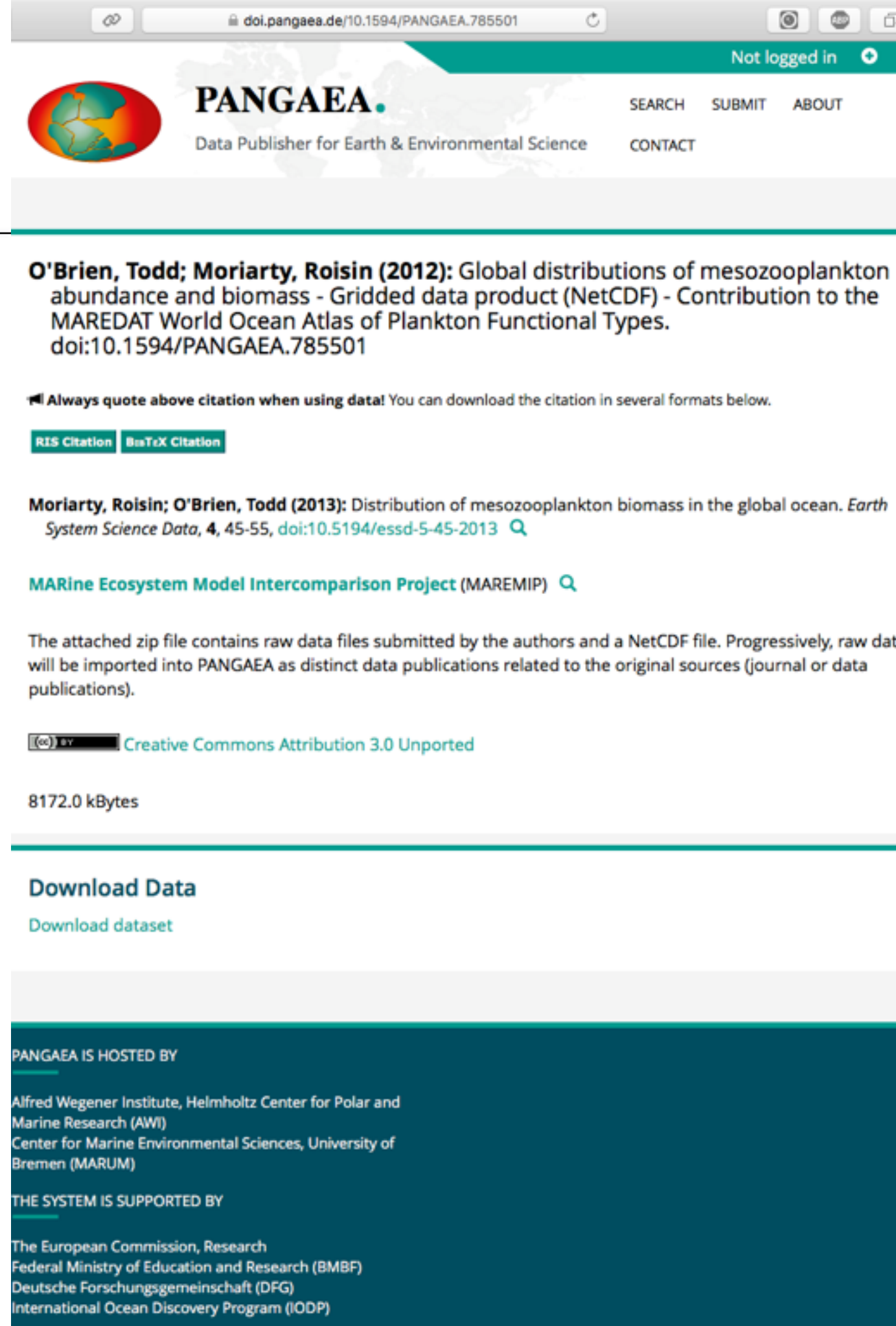
<https://www.pangaea.de>

<https://www.pangaea.de/?q=zooplankton>

<https://www.pangaea.de/?q=maredat>

<http://www.seanoe.org/search>

<http://www.seanoe.org/data/00326/43749/>



The screenshot shows the PANGAEA website interface. At the top, there is a navigation bar with the PANGAEA logo (a globe) and the text "PANGAEA. Data Publisher for Earth & Environmental Science". To the right of the logo, there are links for "SEARCH", "SUBMIT", "ABOUT", and "CONTACT". The user is not logged in. The main content area displays a data record for "O'Brien, Todd; Moriarty, Roisin (2012): Global distributions of mesozooplankton abundance and biomass - Gridded data product (NetCDF) - Contribution to the MAREDAT World Ocean Atlas of Plankton Functional Types." with the DOI: 10.1594/PANGAEA.785501. Below the title, there is a note: "Always quote above citation when using data! You can download the citation in several formats below." and two buttons: "RIS Citation" and "Bibtex Citation". Another record is shown for "Moriarty, Roisin; O'Brien, Todd (2013): Distribution of mesozooplankton biomass in the global ocean. Earth System Science Data, 4, 45-55, doi:10.5194/essd-5-45-2013". Below this, there is a link for "MARine Ecosystem Model Intercomparison Project (MAREMIP)". A note states: "The attached zip file contains raw data files submitted by the authors and a NetCDF file. Progressively, raw data will be imported into PANGAEA as distinct data publications related to the original sources (journal or data publications)." Below this, there is a Creative Commons Attribution 3.0 Unported license icon and the text "Creative Commons Attribution 3.0 Unported". The file size is listed as "8172.0 kBytes". At the bottom, there is a "Download Data" section with a "Download dataset" link. The footer contains information about the hosting institutions: Alfred Wegener Institute, Helmholtz Center for Polar and Marine Research (AWI), Center for Marine Environmental Sciences, University of Bremen (MARUM), and the system support by The European Commission, Research Federal Ministry of Education and Research (BMBF), Deutsche Forschungsgemeinschaft (DFG), and International Ocean Discovery Program (IODP).

Bases de fichiers, campagnes

<https://www.pangaea.de>

<https://www.pangaea.de/?q=zooplankton>

<https://www.pangaea.de/?q=maredat>

<http://www.seanoe.org/search>

<http://www.seanoe.org/data/00326/43749/>

The screenshot shows the SEANOE website search results for the query 'zooplankton'. The page features a blue header with the SEANOE logo and the tagline 'Sea scientific open data publication'. Below the header is a search bar with the query 'zooplankton' and a 'Search everywhere' dropdown menu. The results section shows '1 Result(s)' and includes a list of filters: 'PUBLICATION YEAR' (2016 (1)), 'DISCIPLINE' (Physical oceanography (1)), and 'LICENCE CC' (CC-BY (1)). The main result is 'Dyfamed observatory data' by Coppola Laurent, Diamond Riquier Emilie, and Carval Thierry, with a description: '... and zooplankton every 15 days (48 samples per year)'. The result is dated '2016-04. Dataset'. The page also includes 'Reset facets' and 'Reset research' buttons. At the bottom, there are links for 'Contact' (Technical contact) and 'Publication' (Publish your data).

Bases de fichiers, campagnes

<https://www.pangaea.de>

<https://www.pangaea.de/?q=zooplankton>

<https://www.pangaea.de/?q=maredat>

<http://www.seanoe.org/search>

<http://www.seanoe.org/data/00326/43749/>

Search everywhere

zooplankton

Document n°43749

1 Result(s)

Dyfamed observatory data

Publication date 2016-04

Author(s) Coppola Laurent^{1,2}, Diamond Riquier Emilie^{1,2}, Carval Thierry³

Affiliation(s) 1 : Sorbonne Universités, UPMC Univ. Paris 06, UMR 7093, Laboratoire d'Océanographie de Villefranche, 06230 Villefranche-sur-Mer, France
2 : CNRS, UMR 7093, Laboratoire d'Océanographie de Villefranche, 06230 Villefranche-sur-Mer, France
3 : Ifremer, Service Ingénierie des Systèmes d'Information, France

DOI 10.17882/43749

Publisher SEANOE

Keyword(s) Ligurian Sea, marine biogeochemistry, sediment traps, dissolved oxygen, nutrients, carbon export

Abstract In the framework of the French MOOSE project (Mediterranean Ocean Observing System for the Environment), an eulerian time series so-called DYFAMED (Ligurian Sea) performs since 1991 a monthly multidisciplinary monitoring to observe: 1) the evolution of the water mass properties (LIW and WMDW), 2) the carbon export change and 3) the variability of the biological species relative to climate forcing (temperature, acidification). In addition to monthly CTD profiles, a standalone mooring is located in the DYFAMED site with CTD and currents sensors (since 2009) and two sediment traps (Technicap PPSS) for collecting large particles and zooplankton every 15 days (48 samples per year).

Licence 

Data

File	Size	Format	Processing	Access	Key
2010-2015 deployments	20 MB	NC, NetCDF	Quality controlled data	Open access	43298
2010-2014 deployments	14 MB	NC, NetCDF	Quality controlled data	Restricted access	43276
2010-2013 deployments	2 MB	XLS, XLSX	Quality controlled data	Restricted access	43283

Pôles et bases de données nationaux

Pôle ODATIS <http://www.odatis-ocean.fr> contient

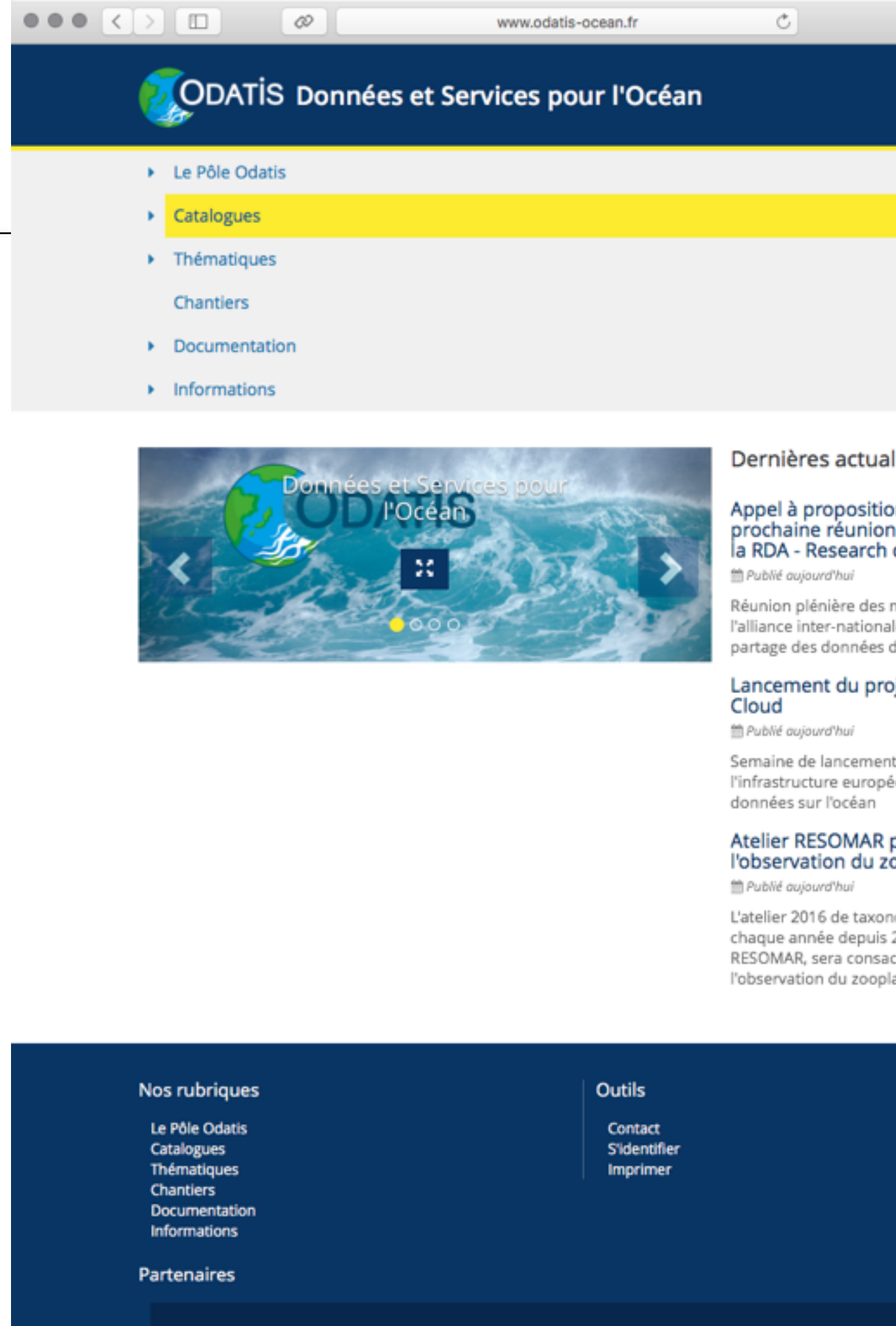
SEANOE, OASU (Bordeaux), OMP/ SEDOO (Toulouse), SISMER, UPMC (OOV, SBR, OOV, LOCEAN), LEFE-CYBER <http://www.obs-vlfr.fr/proof/cruises.php>

Pelagos et Benthos de RESOMAR (mais non consultable actuellement)

Quid de:

Quadrigé² (IFREMER)

Autres?



The screenshot shows the ODATIS website interface. At the top, the logo 'ODATIS Données et Services pour l'Océan' is displayed. Below it is a navigation menu with the following items: 'Le Pôle Odatis', 'Catalogues' (highlighted in yellow), 'Thématiques', 'Chantiers', 'Documentation', and 'Informations'. A central banner features a globe and the text 'Données et Services pour l'Océan'. To the right, a 'Dernières actualités' section lists several news items, including 'Appel à proposition pour la prochaine réunion de la RDA - Research Data Alliance', 'Réunion plénière des membres de l'alliance internationale pour le partage des données océaniques', 'Lancement du projet de Cloud', 'Semaine de lancement de l'infrastructure européenne pour le partage des données sur l'océan', and 'Atelier RESOMAR pour l'observation du zooplancton'. At the bottom, there are sections for 'Nos rubriques' (listing the same navigation items as the top menu) and 'Outils' (listing 'Contact', 'S'identifier', and 'Imprimer').

Pôles et bases de données nationaux

Pôle ODATIS <http://www.odatis-ocean.fr> contient

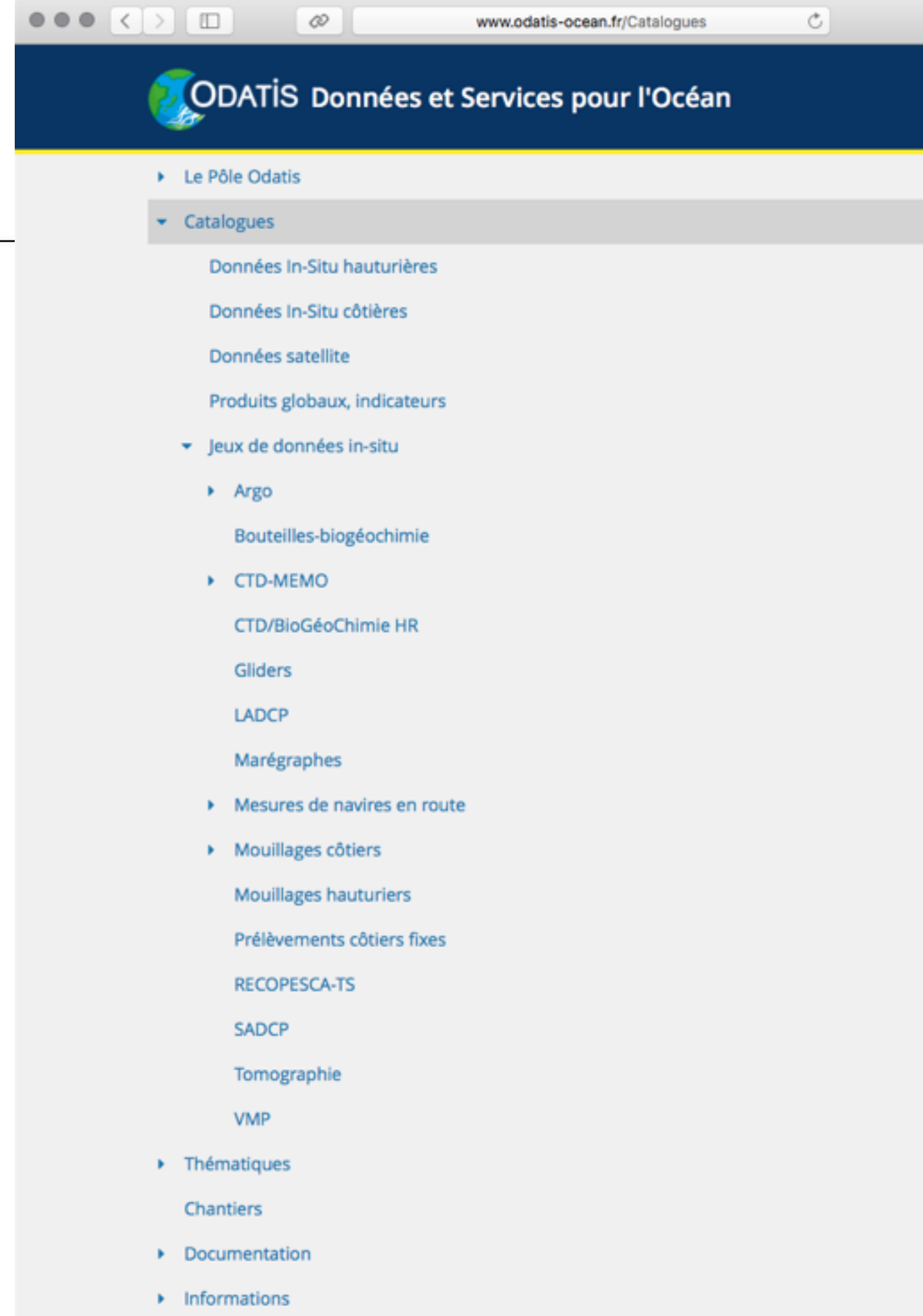
SEANOE, OASU (Bordeaux), OMP/
SEDOO (Toulouse), SISMER, UPMC
(OOV, SBR, OOV, LOCEAN), LEFE-
CYBER <http://www.obs-vlfr.fr/proof/cruises.php>

Pelagos et Benthos de RESOMAR
(mais non consultable actuellement)

Quid de:

Quadrigé² (IFREMER)

Autres?



The screenshot shows the ODATIS website interface. The header features the ODATIS logo and the text "ODATIS Données et Services pour l'Océan". The main navigation menu is displayed on the left side, listing various data categories and services. The menu items are:

- Le Pôle Odatis
- Catalogues
 - Données In-Situ hauturières
 - Données In-Situ côtières
 - Données satellite
 - Produits globaux, indicateurs
- Jeux de données in-situ
 - Argo
 - Bouteilles-biogéochimie
 - CTD-MEMO
 - CTD/BioGéoChimie HR
 - Gliders
 - LADCP
 - Marégraphes
 - Mesures de navires en route
 - Mouillages côtiers
 - Mouillages hauturiers
 - Prélèvements côtiers fixes
 - RECOPECA-TS
 - SADCP
 - Tomographie
 - VMP
- Thématiques
 - Chantiers
- Documentation
- Informations

Pôles et bases de données nationaux

Pôle ODATIS <http://www.odatis-ocean.fr> contient

SEANOE, OASU (Bordeaux), OMP/ SEDOO (Toulouse), SISMER, UPMC (OOV, SBR, OOV, LOCEAN), LEFE-CYBER <http://www.obs-vlfr.fr/proof/cruises.php>

Pelagos et Benthos de RESOMAR (mais non consultable actuellement)

Quid de:

Quadrige² (IFREMER)

Autres?

The screenshot shows a web browser window with the URL abims.sb-roscoff.fr/pelagos/?execution=e2s1. The page features the RESOMAR logo and a navigation menu with 'ACCUEIL', 'CONSULTATION', and 'INSERTION'. The main content is divided into two columns. The left column, titled 'Statistiques de la base de données', contains a table with the following data:

Dernière mise à jour	16/07/2014
Nombre de jeux de données	18
Nombre d'échantillons	3017
Nombre de taxons	797

The right column, titled 'La base de données PELAGOS', contains the following text:

La base de données Pelagos est le fruit d'un travail Stations et Observatoires Marins (RESOMAR). Elle biodiversité de l'écosystème pélagique côtier (dont des objectifs est d'exploiter l'information biologique a questions scientifiques concernant par exemple les distribution et l'abondance des organismes pélagi spatiales et à différentes échelles de temps.

Dans un premier temps, la base ne sera accessible qui ont signé la charte d'utilisation des données (conditions d'utilisation des données).

Pour accéder aux données (et éventuellement ins vous devez :

- signer la charte RESOMAR et l'envoyer à [contact](#)
- demander l'ouverture d'un compte via le formul <http://abims.sb-roscoff.fr/account>.

Un environnement intégré pour l'analyse en ligne proposé à la communauté RESOMAR, Galaxy4Pelago un ensemble de scripts R interfacés sous la plateforme

Pour de plus amples informations : [contact.pelagos@](#)

En cas de problème sur l'application : [support.abims](#)

NB : La version 1 de Pelagos est disponible [ici](#) j insertion de données y est désormais impossible.

The PELAGOS database

The PELAGOS database results from a collaborat (Réseau National des Stations et Observatoires planktonic biodiversity data (including time-series). RESOMAR is to analyse these data to answer scien that control the abundance and distribution of organ time scales in coastal marine systems.

The database will first be available to members of th data charter (that defines conditions of data usage).

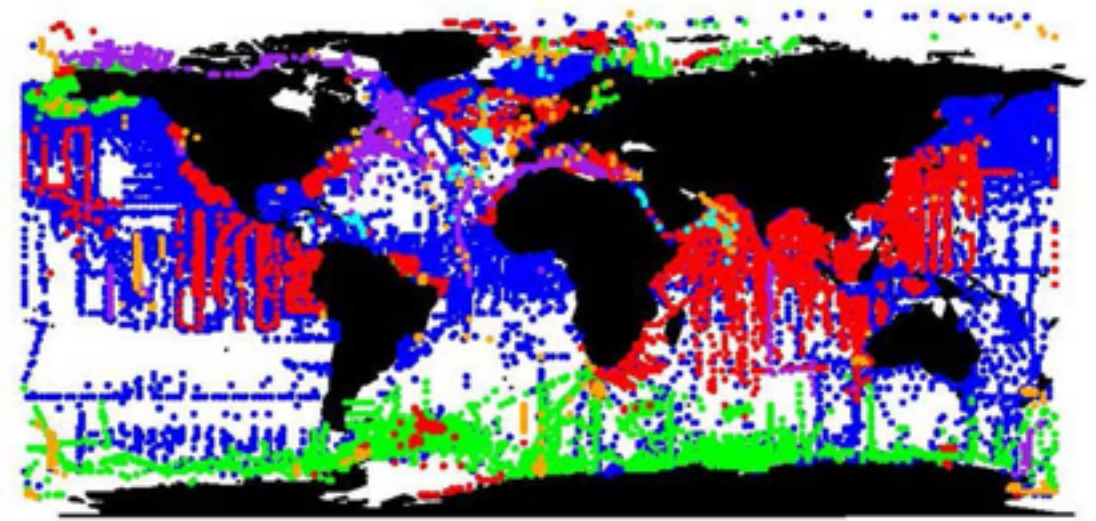
Jugement personnel des entrepôts de données



Pour présences: OBIS

Pour abondances: MAREDAT

Pour suivi des données: SEANOE



● Macrozooplankton ● Mesozooplankton ● Microzooplankton
● Pteropods ● Foraminifera ● Bacteria



Format des données

Divers mais SeaDataNet semble consensuel

<http://www.seadatanet.org/Standards-Software/Data-Transport-Formats>

Minimum

date	espèce	conc.		<i>lat</i>	<i>lon</i>	<i>prof.</i>

SeaDataNet mode ODV

Colonne	Contenu	Co
Cruise	001-P-015 - Point 1 Dunkerque	001-P-015 - P
Station	1001022_BIO_Surf	1001022
Type	*	
yyyy-mm-ddThh:mm:ss.sss	1992-01-07T14:00:00.000	1992-02-0
Longitude [degrees_east]	2.3334994	2.3
Latitude [degrees_north]	51.0686493	51.
LOCAL_CDI_ID	1001022_BIO_Surf	1001022
EDMO_code	486	
Bot. Depth [m]	0	
MinimumObservationDepth [m]	0.5	
QV:SEADATANET	1	

LOCAL_CDI_ID	1001022_BIO_Surf	1001022
EDMO_code	486	
Bot. Depth [m]	0	
MinimumObservationDepth [m]	0.5	
QV:SEADATANET	1	
MaximumObservationDepth [m]	0.5	
QV:SEADATANET	1	
SampleID:INDEXED_TEXT	50021	5
QV:SEADATANET	1	
SamplingEffort:INDEXED_TEXT		
QV:SEADATANET	9	
SubsampleID:INDEXED_TEXT	50021	5
QV:SEADATANET	1	
SubSamplingCoefficient:INDEXED_TEXT	1	
QV:SEADATANET	1	

SubSamplingCoefficient:INDEXED_TEXT	1	
QV:SEADATANET	1	
ScientificName:INDEXED_TEXT	Prorocentrum	Gym
QV:SEADATANET	2	
ScientificNameID:INDEXED_TEXT	urn:lsid:marinespecies.org:taxname:109566	urn:lsid:marinespecies.org:taxname:109566
QV:SEADATANET	2	
Sex:INDEXED_TEXT	Not Specified	Not Specified
QV:SEADATANET	9	
LifeStage:INDEXED_TEXT	Not Specified	Not Specified
QV:SEADATANET	9	
ObservedIndividualCount [#]		
QV:SEADATANET	9	
IndividualCountperLiter [# /l]	300	
QV:SEADATANET	2	

Contrôle qualité

Sur les identifications

Culverhouse, 2003 (dinoflagellés)

67 à 83% pour personnel entraîné

84 à 95% pour experts

Tara Zooscan

subset aléatoire de 5%, vérification collégiale \Rightarrow taux d'erreur \sim 2%

Sur les abondances

COPEPOD

range check (lat, lon)

par taxon/group: $n \notin \text{mean} \pm 5 \text{ SD} \rightarrow$
investigation

GBIF

Field error expected to be 1 to 5%

Contrôle qualité

Chapman, A. D. 2005. Principles of Data Quality, version 1.0. Report GBIF.

Chapman, A. D. 2005. Principles and Methods of Data Cleaning – Primary Species and Species- Occurrence Data, version 1.0. Report GBIF <http://www.gbif.org/resource/80528>

Error sources

spatial (temporal)

nomenclatural (taxa names)

data duplication

Principles

Plan a data cleaning policy and strategy

Prevention is better than cure

Prioritise, do not duplicate

Everyone is responsible (collector, curator, user)

Accountability, transparency and documentation

Flags SeaDataNet

Flag	Signification	Explication
0	no quality control	
1	good	
2	probably good	Probably consistent but cannot be checked; associated with defect but small
3	probably bad	Probably inconsistent
4	bad	Obviously erroneous
5	changed	Adjusted during quality control
6	below detection	
7	excess	Too large to be measured by technique
8	interpolated	
9	missing	
A	ID uncertain	Uncertainty in identification

Visualisation des données

<https://www.sahfos.ac.uk/data/data-charts/>

<https://www.sahfos.ac.uk/data/map-data/>

<http://www.obs-vlfr.fr/data/view/zoo/b/wp2/>

Mise à disposition:
attention à ne pas faire la science à la place des gens!

