

PANGAEA

Data Publisher for Earth &
Environmental Science •

Overview

- PANGAEA – an open long-term archive
- What does PANGAEA publish, what not?
- PANGAEA data are FAIR
- PANGAEA interoperability
- Data ingest workflow
- How to submit data



PANGAEA
Data Publisher for Earth &
Environmental Science •

PANGAEA - an open long-term archive

The screenshot shows the PANGAEA Data Publisher website at https://www.pangaea.de. The header includes the ZMT logo, a globe icon, and the text "PANGAEA. Data Publisher for Earth & Environmental Science". The top right shows "Not logged in" with links for SEARCH, SUBMIT, HELP, ABOUT, and CONTACT. On the left, there's a sidebar with "Submit Data" (with a "Submit" button and a globe icon), "TOPICS" (with a grid of images for Chemistry, Lithosphere, Biological Classification, Atmosphere, and Paleontology), and "MAP" (with a small map icon). The main content area has a "Welcome to PANGAEA® Data Publisher" section with a message about archiving, publishing, and re-use, and a "Latest News" section with two entries: one about the registration workshop and another about BSRN being recognized by GCOS.

110% Not logged in

PANGAEA.
Data Publisher for Earth & Environmental Science

SEARCH SUBMIT HELP ABOUT CONTACT

Submit Data

TOPICS

MAP

Welcome to PANGAEA® Data Publisher

Our services are generally open for archiving, publishing, and re-usage of data. The World Data Center PANGAEA is member of the World Data System.

ALL TOPICS ▾

Search for measurement type, author name, project, taxa,...

CHEMISTRY (142601) LITHOSPHERE (134895) BIOLOGICAL CLASSIFICATION (34223) ATMOSPHERE (30558) PALEONTOLOGY (25996)

Part of the GLOBAL CLIMATE OBSERVING SYSTEM & GCOS Recommended Reference Network

Part of the Global Climate Observing System & GCOS Recommended Reference Network

Latest News

2022-11-21 REGISTRATION IS OPEN! PANGAEA COMMUNITY WORKSHOP: FAIR DATA PUBLICATIONS WITH PANGAEA

The four-hour hands-on workshop focuses on preparing and submitting data to PANGAEA in accordance to requirements for FAIR and sustainable data publishing. Join online at Dec. 01 and 02, both 10:30am – 12:30pm CET (UTC+1). More details and pre-registration here (closes Nov. 27!!).

2022-10-12 BSRN IS NOW GCOS RECOGNIZED NETWORK

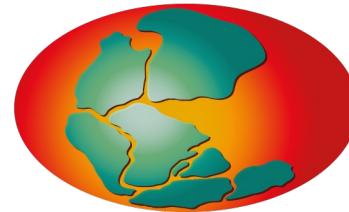
The Baseline Surface Radiation Network has now officially received the certificate of "GCOS recognized network". BSRN data is published in the WMO accredited World Radiation Monitoring Center (WRMC), which is hosted by PANGAEA.

- Member of the World Data System
- WMO accredited and CoreTrustSeal certified



PANGAEA team

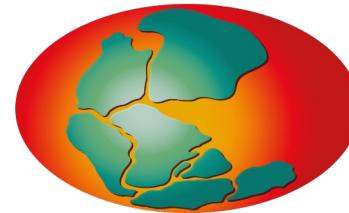
- MARUM and AWI staff
- Cooperation partners
- Associated research projects



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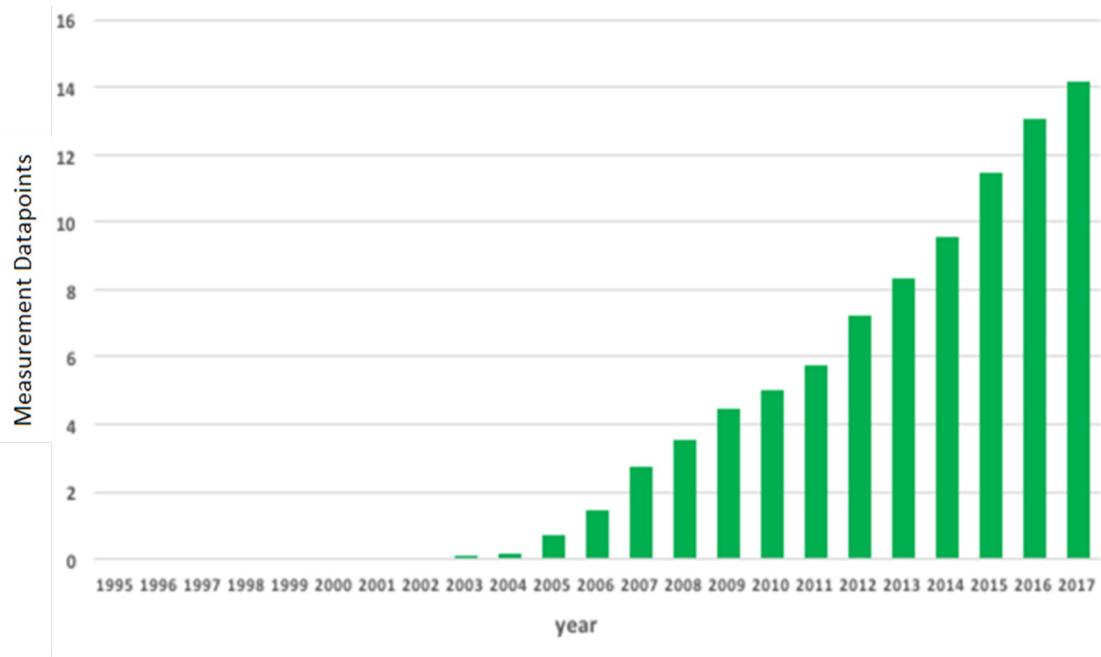


PANGAEA in figures



PANGAEA
Data Publisher for Earth &
Environmental Science •

- > 400,000 datasets
- > 780 projects
- > 24 billion measurements
- approx. 10,000 new datasets per year



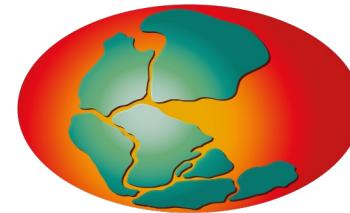
What does PANGAEA publish, what not?

Yes:

- Biology, Geology, Chemistry, Physics, Climate Sciences, Social Sciences, ...
- Georeferenced observations and measurements
- Experimental and analytical data
- Tabular data -> relational system
- Binary files -> static system

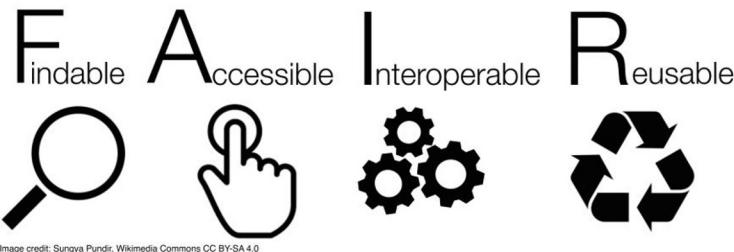
No:

- Large volume modelling data
- Software & code
- Genetic sequences



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FAIR data at PANGAEA



SEARCH SUBMIT HELP ABOUT CONTACT

Citation:

Canals, Oriol; Mendibil, Iñaki; Santos Mocroa, María; Irigoien, Xabier; Rodríguez-Ezpeleta, Naiara (2021): Operational taxonomic units of deep-sea fishes from environmental DNA collected during Ramon Margalef cruise BIOMAN 2018 to the Bay of Biscay, with links to accession numbers. PANGAEA, <https://doi.org/10.1594/PANGAEA.935870>

Always quote citation above when using data! You can download the citation in several formats below.

RIS Citation BibTeX Citation Copy Citation Facebook Twitter Show Map Google Earth



Abstract:

Analysis of fish environmental DNA (DNA traces released into the environment in form of tissue, mucus, feces, etc.) from several oceanic vertical profiles (from the surface up to 2000 m depth) along the continental slope of the Bay of Biscay. We provide the geographical location of each vertical profile, the station at which each sample belongs to, the depth hour at which each sample was collected, if the sampling was carried out during day or nighttime, and the water volume filtered. The accession numbers to the raw data of samples (available on BioProject ID [Lsdc:PRJNA759107](#)) are also detailed. All samples were obtained by deploying a rosette sampler, and the surface ones were also collected continuous clean circuit intake of the vessel. The final operational taxonomic unit counts (OTUs) of the fish species were based on sequencing the mitochondrial 12S rRNA gene Illumina MiSeq platform, and taxonomic assignment to the World Register of Marine Species (WoRMS) and a local database restricted to fish species of the Northeast Atlantic Mediterranean areas.

Keyword(s):

Pisces [Q](#); eDNA metabarcoding [Q](#); environmental DNA [Q](#); Fi

Supplement to:

Canals, Oriol; Mendibil, Iñaki; Santos Mocroa, María; Irig ecological patterns and behavior of deep-sea fishes. *Limno*

Other version:

Rodríguez-Ezpeleta, Naiara (2021): Deep fish eDNA - Data a

Project(s):

Environmental DNA based approaches for marine and aquaculture management [Q](#)
Sustainable Management of Mesopelagic Resources (SUMMER) [Q](#)



Findable & Accessible

- Searchable database
- Persistent identifier (DOI)
- Rich metadata
- Links to references



Sustainable Management of Mesopelagic Resources [Q](#)

Label: SUMMER

Funded by: European Commission, grant/award no. 817806 (Sustainable management of mesopelagic resources)

FAIR data at PANGAEA

Coverage:

Median Latitude: 44.893750 * Median Longitude: -4.180000 * South-bound Latitude: 43.600000 * West-bound Longitude: -6.430000 * North-bound Latitude: 47.350000 * East-bound Longitude: -2.170000

Date/Time Start: 2018-05-09T11:30:00 * Date/Time End: 2018-05-24T17:10:00

Minimum DEPTH, water: 5 m * Maximum DEPTH, water: 2080 m

Event(s):

BIOMAN_2018_PV_111-1 (PV_111) [Q](#) * Latitude: 43.600000 * Longitude: -2.720000 * Date/Time: 2018-05-11T20:07:00 * Location: Bay of Biscay [Q](#) * Campaign: BIOMAN_2018 [Q](#) * Basis: Ramon Margalef [Q](#) * Method/Device: Bio-Rosette (BRO) [Q](#)

BIOMAN_2018_PV_136-1 (PV_136) [Q](#) * Latitude: 43.670000 * Longitude: -2.170000 * Date/Time: 2018-05-12T09:10:00 * Location: Bay of Biscay [Q](#) * Campaign: BIOMAN_2018 [Q](#) * Basis: Ramon Margalef [Q](#) * Method/Device: Bio-Rosette (BRO) [Q](#)

BIOMAN_2018_PV_236-1 (PV_236) [Q](#) * Latitude: 44.630000 * Longitude: -2.350000 * Date/Time: 2018-05-13T23:10:00 * Location: Bay of Biscay [Q](#) * Campaign: BIOMAN_2018 [Q](#) * Basis: Ramon Margalef [Q](#) * Method/Device: Bio-Rosette (BRO) [Q](#)

Show more...

Parameter(s):

#	Name	Short Name	Unit	Principal Investigator	Method/Device	Comment
1	Event label Q	Event		Rodríguez-Ezpeleta, Naiara Q		
2	Station label Q	Station		Rodríguez-Ezpeleta, Naiara Q		
3	DATE/TIME Q	Date/Time		Rodríguez-Ezpeleta, Naiara Q		Geocode
4	Latitude of event Q	Latitude		Rodríguez-Ezpeleta, Naiara Q		
5	Longitude of event Q	Longitude		Rodríguez-Ezpeleta, Naiara Q		
6	DEPTH, water Q	Depth water	m	Rodríguez-Ezpeleta, Naiara Q		
7	Time of day Q	Time of day		Rodríguez-Ezpeleta, Naiara Q		
8	Water volume, filtered Q	Vol filtered	m ³	Rodríguez-Ezpeleta, Naiara Q		
9	Sample ID Q	Sample ID		Rodríguez-Ezpeleta, Naiara Q		
10	Accession number, genetics Q	Access no gen		Rodríguez-Ezpeleta, Naiara Q		sample
11	Accession number, genetics Q	Access no gen		Rodríguez-Ezpeleta, Naiara Q		project
12	Alepocephalus agassizii, operational taxonomic unit Q	A. agassizii OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
13	Anguilla anguilla, operational taxonomic unit Q	A. anguilla OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
14	Aphanopus carbo, operational taxonomic unit Q	A. carbo OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
15	Aphia minuta, operational taxonomic unit Q	A. minuta OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
16	Argentina silus, operational taxonomic unit Q	A. silus OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
17	Bathyergus europs, operational taxonomic unit Q	B. europs OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
18	Bathytropes microlepis, operational taxonomic unit Q	B. microlepis OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		ale OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		ater OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		mus OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		sp. OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		stris OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		odon OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		x OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	
		D. sargus OTU	#	Rodríguez-Ezpeleta, Naiara Q	Metabarcoding Q	

Bathytropes microlepis, operational taxonomic unit <#> [Q](#)

Short name: B. microlepis OTU <#>

Terms used:

- █ Bathytropes microlepis ([urn:lsid:marinespecies.org:taxname:126693](#)) [Q](#)
- █ operational taxonomic unit (OTU) [Q](#)
- █ Abundance or Count [Q](#)

This is a beta feature. Please [report](#) any incorrect term assignments.

27 Dipodus sargus, operational taxonomic unit [Q](#)

D. sargus OTU



Findable & Reusable

- Georeferences
- Parameter list in metaheader
- Links to WoRMS records

FAIR data at PANGAEA

License:  Creative Commons Attribution 4.0 International (CC-BY-4.0)

Status: Curation Level: Enhanced curation (CurationLevelC) 

Size: 2726 data points

Accessible & Reusable

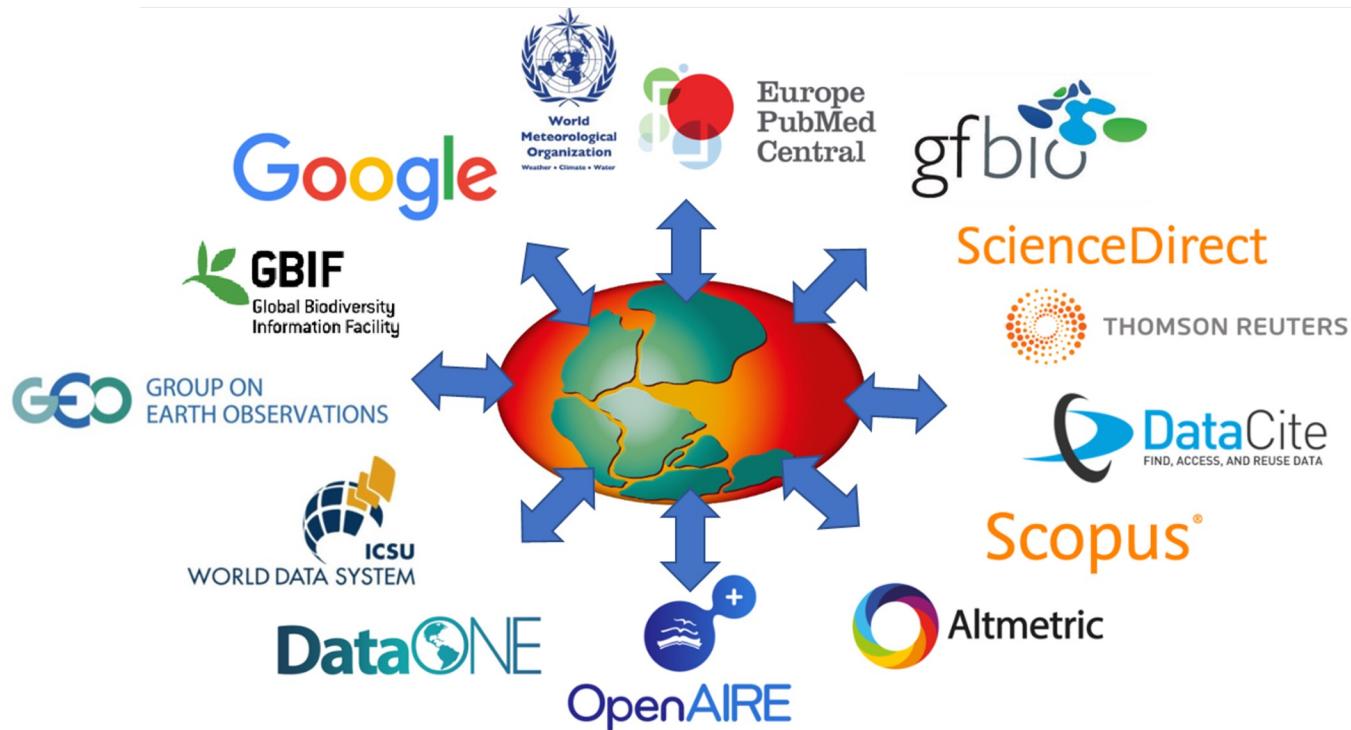
- View data online
- Download in broadly applicable language
- License information

Data

[Download dataset as tab-delimited text — use the following character encoding:](#) [▼](#)

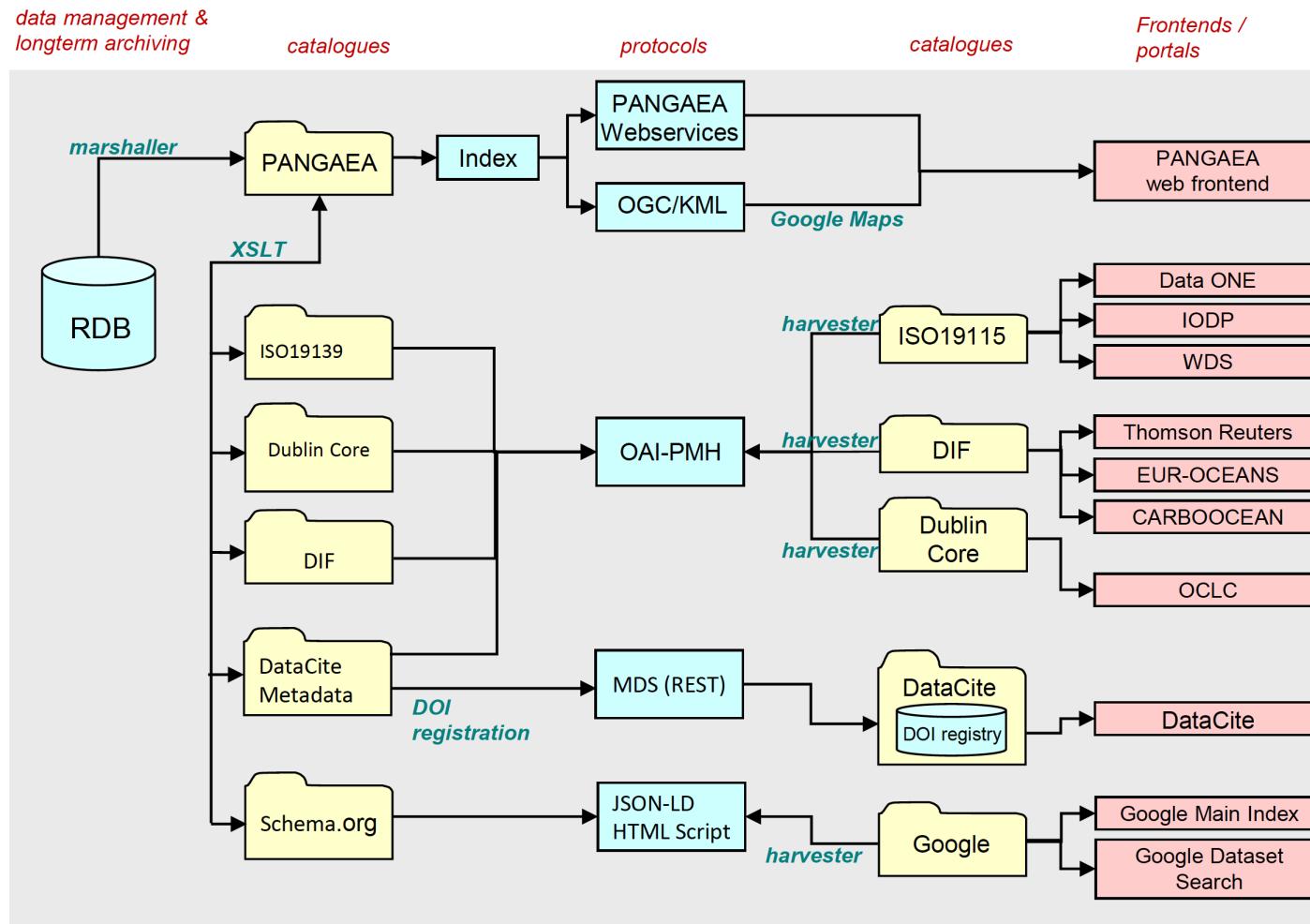
1 ⓘ Event	2 ⓘ Station	3 ⓘ Date/Time	4 ⓘ Latitude	5 ⓘ Longitude	6 ⓘ Depth water [m]	7 ⓘ Time of day	8 ⓘ Vol filtered [m³]	9 ⓘ Sample ID	10 ⓘ Access no gen (sample)	11 ⓘ Access no gen (project)	12 ⓘ A. agassizii OTU [#]	13 ⓘ A. anguill
BIOMAN_2018_PV_37-1	PV_37	2018-05-09T11:30:00	43.8800	-6.3300		5 Day		0.00500 18BIO003	insdc:SAMN21156410 insdc:PRJNA759107		0	
BIOMAN_2018_PV_37-1	PV_37	2018-05-09T11:30:00	43.8800	-6.3300		50 Day		0.00500 18BIO004	insdc:SAMN21156411 insdc:PRJNA759107		0	
BIOMAN_2018_PV_37-1	PV_37	2018-05-09T11:30:00	43.8800	-6.3300		200 Day		0.00500 18BIO005	insdc:SAMN21156412 insdc:PRJNA759107		0	
BIOMAN_2018_PV_37-1	PV_37	2018-05-09T11:30:00	43.8800	-6.3300		500 Day		0.00500 18BIO006	insdc:SAMN21156413 insdc:PRJNA759107		0	
BIOMAN_2018_PV_37-1	PV_37	2018-05-09T11:30:00	43.8800	-6.3300		1000 Day		0.00500 18BIO007	insdc:SAMN21156414 insdc:PRJNA759107		0	
BIOMAN_2018_PV_37-1	PV_37	2018-05-09T11:30:00	43.8800	-6.3300		1580 Day		0.00500 18BIO008	insdc:SAMN21156415 insdc:PRJNA759107		131	
BIOMAN_2018_PV_54-1	PV_54	2018-05-10T04:52:00	43.7700	-4.6000		5 Night		0.00450 18BIO010	insdc:SAMN21156417 insdc:PRJNA759107		0	
BIOMAN_2018_PV_54-1	PV_54	2018-05-10T04:52:00	43.7700	-4.6000		50 Night		0.00500 18BIO011	insdc:SAMN21156418 insdc:PRJNA759107		0	
BIOMAN_2018_PV_54-1	PV_54	2018-05-10T04:52:00	43.7700	-4.6000		200 Night		0.00500 18BIO012	insdc:SAMN21156419 insdc:PRJNA759107		1	
BIOMAN_2018_PV_54-1	PV_54	2018-05-10T04:52:00	43.7700	-4.6000		500 Night		0.00500 18BIO013	insdc:SAMN21156420 insdc:PRJNA759107		0	
BIOMAN_2018_PV_54-1	PV_54	2018-05-10T04:52:00	43.7700	-4.6000		1000 Night		0.00500 18BIO014	insdc:SAMN21156421 insdc:PRJNA759107		0	
BIOMAN_2018_PV_54-1	PV_54	2018-05-10T04:52:00	43.7700	-4.6000		1590 Night		0.00500 18BIO015	insdc:SAMN21156422 insdc:PRJNA759107		0	

PANGAEA – (Meta)data dissemination



Schindler, Uwe. (2021, June 2). ORCID-Integration in Forschungsdatenrepositorien am Beispiel von PANGAEA. 5. ORCID DE Workshop zu ORCID in Publikations- und Informationsinfrastrukturen, www.Zenodo. <https://doi.org/10.5281/zenodo.4896398>

PANGAEA – Metadata services



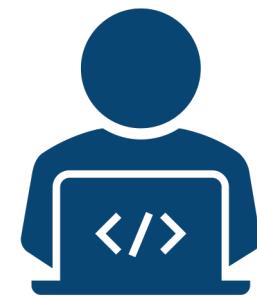
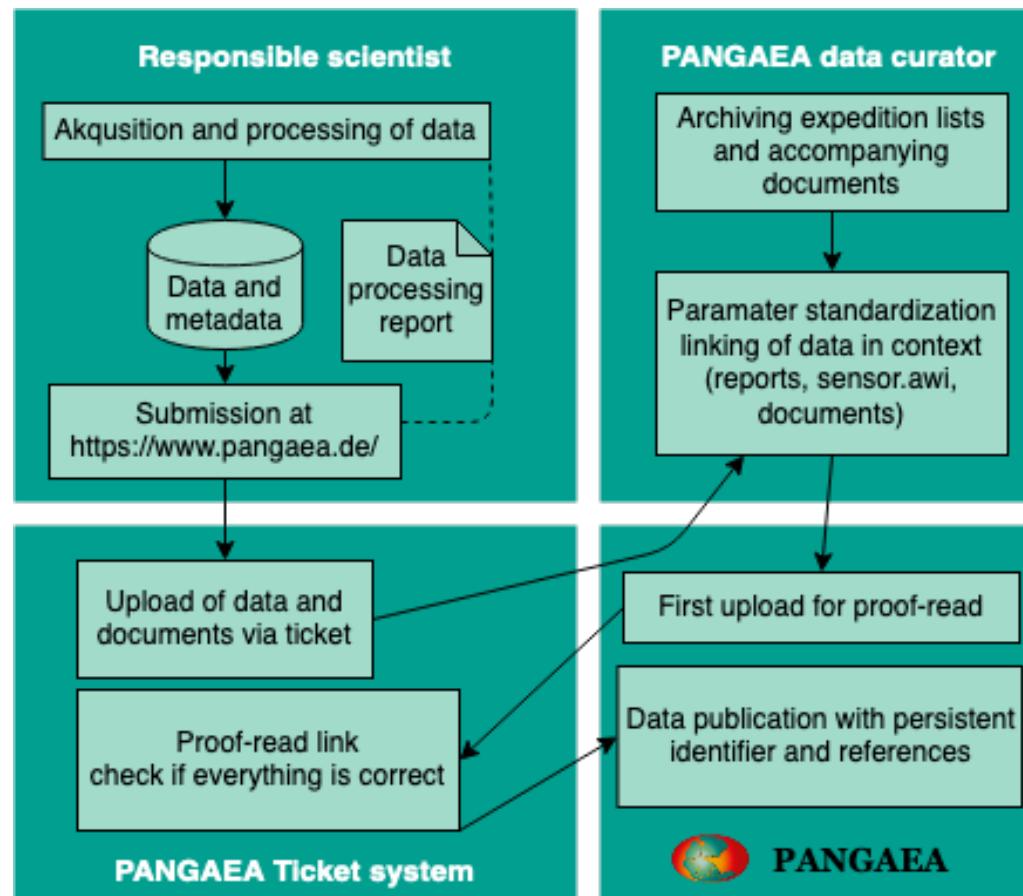
Data access

- Direct download from website
- Data warehouse web app
- R library pangaear
- Python library pangaeapy
- HTTP content negotiation via DOI link



PANGAEA
Data Publisher for Earth &
Environmental Science •

PANGAEA Data ingest workflow



Data submission

The screenshot shows the PANGAEA Data Publisher website at https://www.pangaea.de. A red box highlights the 'Submit Data' button on the left sidebar. The main content area features a welcome message, search bar, and topic categories like Chemistry, Lithosphere, Biological Classification, Atmosphere, and Paleontology.

PANGAEA.
Data Publisher for Earth & Environmental Science

Not logged in

SEARCH SUBMIT HELP ABOUT CONTACT

Submit Data

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ALL TOPICS ▾

Search for measurement type, author name, project, taxa,...

CHEMISTRY
(142601)

LITHOSPHERE
(134895)

BIOLOGICAL CLASSIFICATION
(34223)

ATMOSPHERE
(30558)

PALEONTOLOGY
(25996)

Part of the
GLOBAL CLIMATE
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a GCOS Recognized Network

The Baseline Surface Radiation Network has now officially received the certificate of "GCOS recognized network". BSRN data is published in the WMO accredited World Radiation Monitoring Center (WRMC), which is hosted by PANGAEA.

Data submission – Basic information

Dataset title - always
different from
manuscript title



Dataset authors



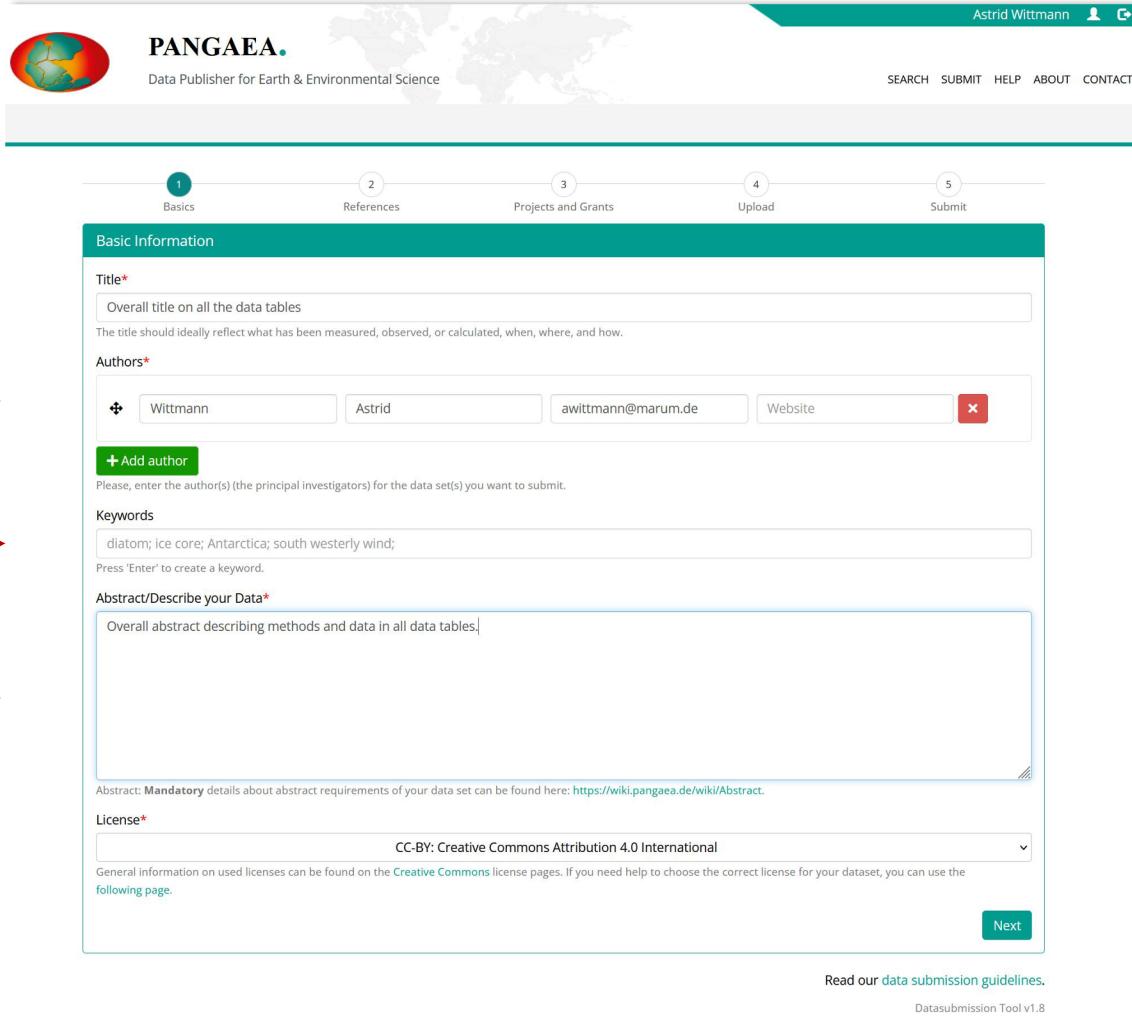
Keywords



Abstract - always
different from
manuscript abstract



Choose license for
reuse of your data



PANGAEA.
Data Publisher for Earth & Environmental Science

Astrid Wittmann  

SEARCH SUBMIT HELP ABOUT CONTACT

1 Basics 2 References 3 Projects and Grants 4 Upload 5 Submit

Basic Information

Title*
Overall title on all the data tables
The title should ideally reflect what has been measured, observed, or calculated, when, where, and how.

Authors*
Wittmann, Astrid, awittmann@marum.de, Website 

+ Add author
Please, enter the author(s) (the principal investigator(s)) for the data set(s) you want to submit.

Keywords
diatom; ice core; Antarctica; south westerly wind;
Press 'Enter' to create a keyword.

Abstract/Describe your Data*
Overall abstract describing methods and data in all data tables.

Abstract: Mandatory details about abstract requirements of your data set can be found here: <https://wiki.pangaea.de/wiki/Abstract>.

License*
CC-BY: Creative Commons Attribution 4.0 International 

General information on used licenses can be found on the [Creative Commons](#) license pages. If you need help to choose the correct license for your dataset, you can use the following page.

Next

Read our [data submission guidelines](#).
Datasubmission Tool v1.8

Data submission – File upload

Add 1 or more files,
max. 100 MB
for larger
attachments request
upload link

File Upload

Upload

+ Add files

India all copepods m3.xlsx 1.03 MB X

Temperature and Salinity.xlsx 154.45 KB X

DATA FILE(S) ARE REQUIRED! Max. size for attachments is 100MB. If you have larger files OR if you have more than 20 files please request an upload link writing a comment into your issue. For data submissions, read our format guide <https://wiki.pangaea.de/wiki/Format>.

Title1: Copepod abundance in the mesopelagic during cruise HAPPY on RV CAMPER during season x in YYYY
Abstract1 (India all copepods m3.xlsx):
Copepods were collected here from depths y in season x of YYYY using this method on RV CAMPER during cruise HAPPY. Samples were preserved immediately using method y. In the laboratory adlfkgadifgadifgadlkfghadlkfjialkfiaalkfsaidgfkihödkfjialdfksjaääfiglkfisgkifsdglakifslailflahlfkg LCVNMLF

Title2: Cruise track measurements of temperature and salinity during cruise HAPPY on RV CAMPER during season x in YYYY
Abstract2 (Temperature and Salinity.xlsx): adgfjhadlfkifskiglakSDIGLSDIg DVBNADLFHIADLFKJADLFKJALDFKIGALÖKFIALDKFGJALDFKIGALDFKIGADLÖKFIGA adlbncvbyoijuhbiaentn

Please describe your uploaded data files.

Back Next

Read our [data submission guidelines](#).

Datasubmission Tool v1.8

Data submission - Submit

Comment, e.g. to request upload link for larger files

Request moratorium for up to 2 years

Must read and accept terms of use

Submit

Comment

Please, use this field for any further comments for our editorial team.

Moratorium required

until related article is published

until date

Your maximum embargo time is 2 years from now.

Terms of Use*

In order to submit data to PANGAEA, you have to read and accept our [terms of use](#). If you do not check this box, our editorial team cannot process your data submission!

Back

Submit

Read our [data submission guidelines](#).

Questions?

- Read the Wiki
- Contact PANGAEA via web contact form

Astrid Wittmann

PANGAEA.
Data Publisher for Earth & Environmental Science

SEARCH SUBMIT **HELP** **ABOUT** **CONTACT**

Submit Data

Welcome to PANGAEA® Data Publisher

Our services are generally open for archiving, publishing, and re-use of data. The World Data Center PANGAEA is member of the World Data System.

Summary

- PANGAEA publishes **georeferenced** observation and measurement data, incl. experimental data according to the **FAIR principles**
- PANGAEA is an **open** long-term archive with services for metadata harvesting and data access
- Dataset **author** and PANGAEA data **editor** work as a **team** to assure **high quality data**
- Submission **guidelines** and templates:
 - https://wiki.pangaea.de/wiki/Data_submission
- **Submit** data via the ticket system here:
 - <https://pangaea.de/submit/>





**Thank you for your
attention**

Dr. Astrid Wittmann

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Fax: +49 (0)421 23800 - 30

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www.leibniz-zmt.de

www.facebook.com/leibniz-zmt.de

Data submission - References

1 Basics 2 References 3 Projects and Grants 4 Upload 5 Submit

References

References

Peter Parker, Marianna Meier, Clark Kent (2021). Data publications are important in science. Test Journal, <https://doi.org/10.5281/1234/1234> X

+ Add reference

Please, specify any references to articles or submitted manuscripts related to this data submission. Copy/paste simply the references [Digital Object Identifier \(DOI\)](#) or the full citation preferably with a DOI.

Back **Next**

Read our [data submission guidelines](#).
Datasubmission Tool v1.8

- Provide related full references always with DOI or
- Manuscript details
- Can add multiple references

Data submission – Projects and Grants

1 Basics 2 References 3 Projects and Grants 4 Upload 5 Submit

Projects and Grants

Projects and/or Awards/Grants

 SUMMER: Sustainable Managerem	Project website	Award/grant title and/or number	
---	-----------------	---------------------------------	---

+ Add row

Enter projects and/or awards/grants in the context of your dataset.
If the project can be selected from the autocomplete menu, no further information (website, funding) need to be added.

Back **Next**

Read our [data submission guidelines](#).

Datasubmission Tool v1.8

- Project name, funder and award number
- Can add multiple projects