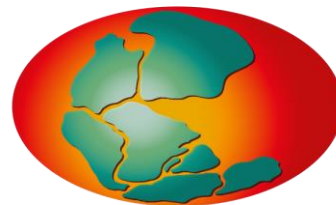


Publication of FAIR Data

Janine Felden & Paul Remmler



HELMHOLTZ



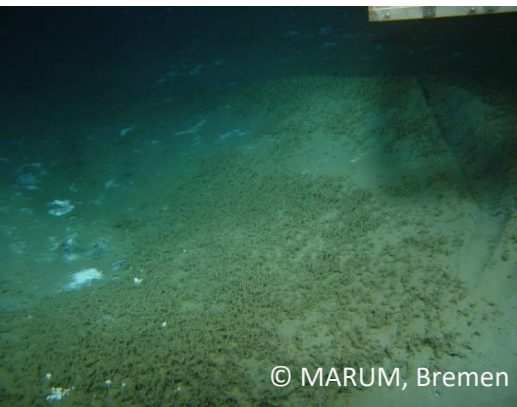
PANGAEA
Data Publisher for Earth &
Environmental Science.



About me & PANGAEA



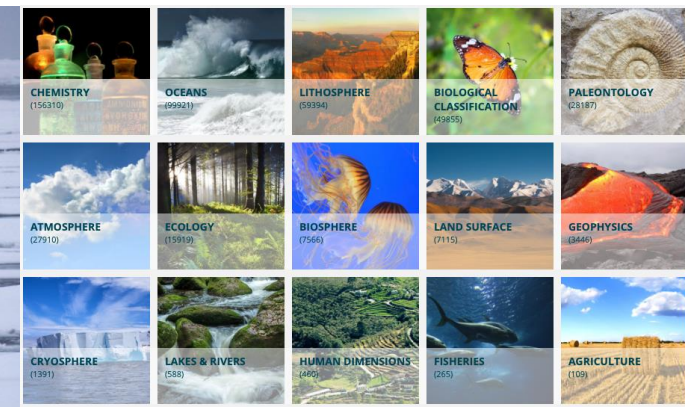
- Scientific background: marine benthic deep sea ecologist focusing on biogeochemical investigations of cold seeps and arctic ecosystems



© MARUM, Bremen



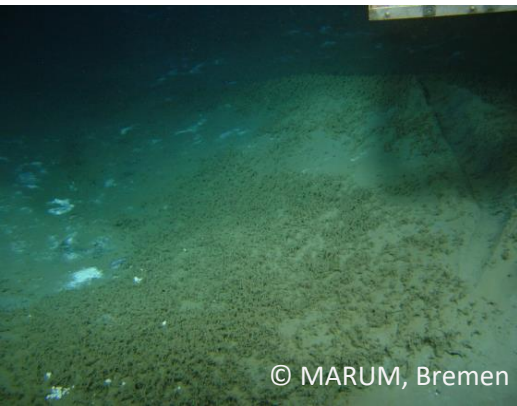
© MARUM, Bremen



About me & PANGAEA



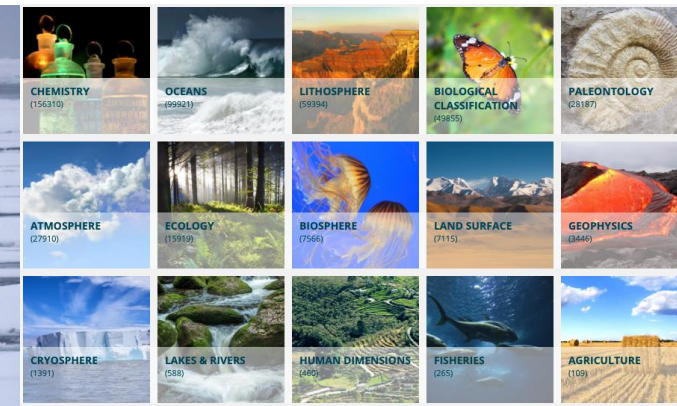
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- 2012 -2019: Data and Project Manager at PANGAEA (MARUM/UniBremen)
- Since 2013: German Federation for Biological Data (GFBio)



© MARUM, Bremen



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About me & PANGAEA

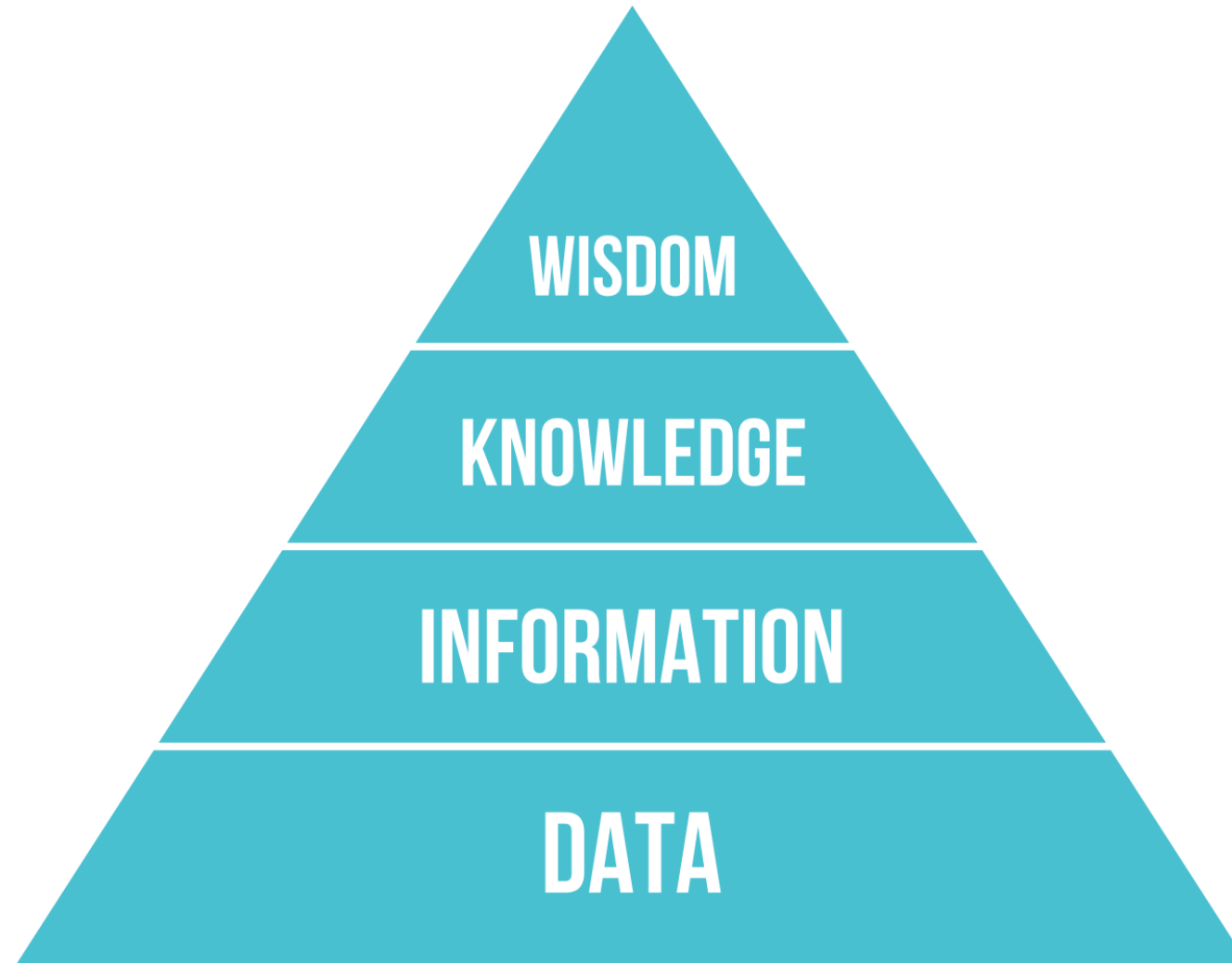


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- 2012 -2019: Data and Project Manager at PANGAEA (MARUM/UniBremen)
- Since 2013: German Federation for Biological Data (GFBio)
- Since 2019: NFDI4Biodiversity
- Since 2020: PANGAEA Group Leader at the AWI & NFDI4Earth
-



What is NFDI...





https://upload.wikimedia.org/wikipedia/commons/0/06/DIKW_Pyramid.svg



90 Billion €

<http://www.dfg.de/sites/foerderatlas2018>



.. for discovering and reusing multiple data sources

80%

Mons, B. et al., doi:10.3233/ISU-1704824

Dark Data



[...] data that has never been published or otherwise made available to the rest of the scientific community.

B. P. Heidorn *Libr. Trends* 57, 280–299; 2008



NASA admitted in 2006 that no one could find the original video recordings of the July 20, 1969, landing.

Since then, Richard Nafzger, an engineer at NASA's Goddard Space Flight Center in Maryland, who oversaw television processing at the ground-tracking sites during the Apollo 11 mission, has been looking for them.

The good news is he found where they went. The bad news is they were part of a batch of 200,000 tapes that were degaussed -- magnetically erased -- and re-used to save money.

Data Lost by.....



Science Home News Journals Topics Careers

Search [] [] []

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LG Chem Global Innovation Contest 2018
Application Period 2018.06.18-2018.09.30 Click in

Institution: TECHNISCHE UNIVERSITÄT BRAUNSCHWEIG
Log in | My account | Contact Us

Science Becor
Renew n Sign up

SHARE SHARE

f 0 f 0
t 0 t 0
G+ 0 G+ 0

nature International weekly journal of science

Home | News & Comment | Research | Careers & Jobs | Current Issue | Archive | Audio & Video | For Authors

News & Comment > News > 2018 > September > Article

NATURE |

Contr

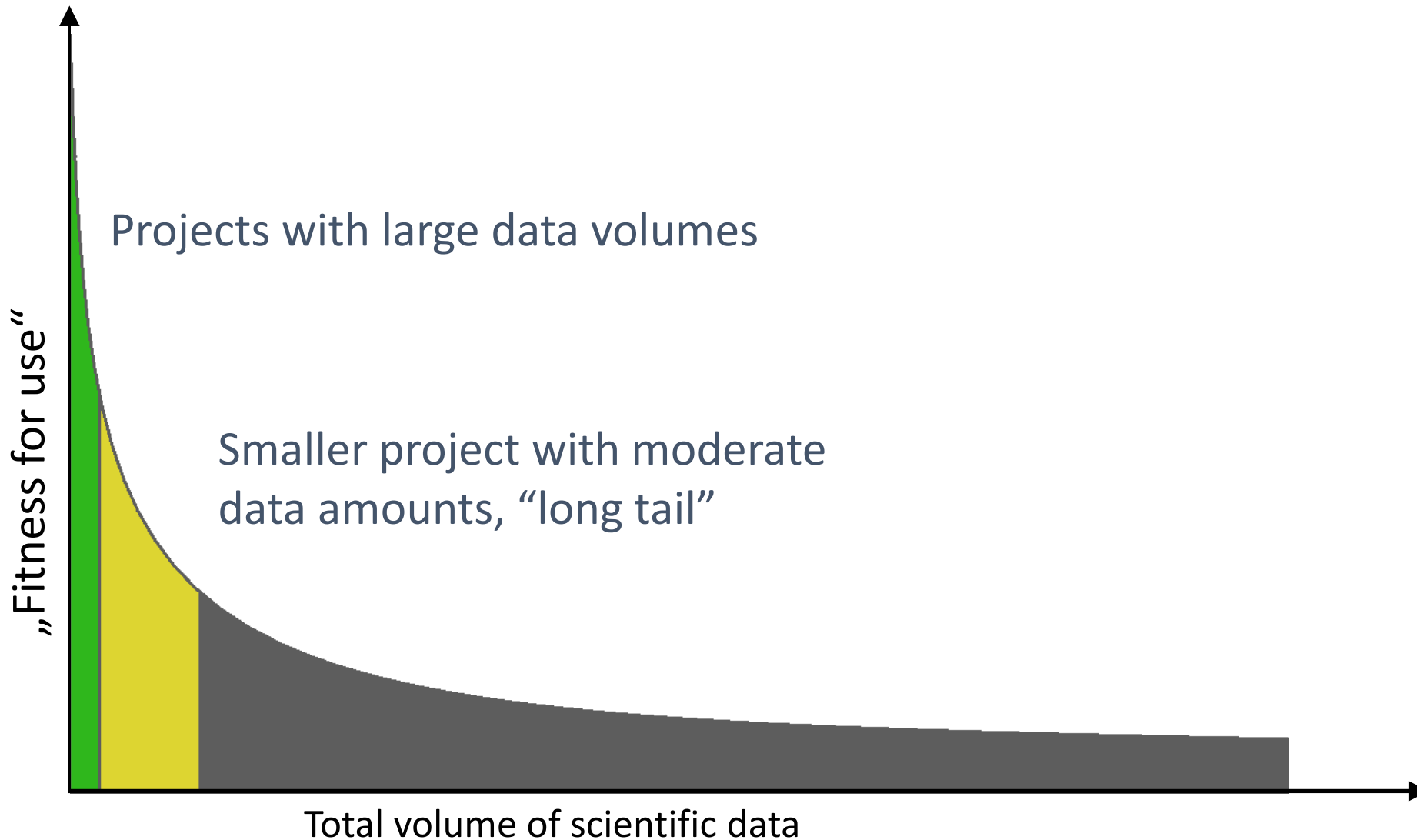
Authors o

Daniel Cr

02 May 20

Right

Eklöv and Lönnstedt, meanwhile, say that the investigation report “includes many errors”. For instance, they say they did have an ethical permit covering the experiments they undertook, and the fact that the laptop was stolen, and data not properly backed up “was an unfortunate mistake and not dishonesty”.





SCIENTIFIC DATA



OPEN

Comment: The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson *et al.*[#]

SUBJECT CATEGORIES

- » Research data
- » Publication characteristics

Findable
Accessible
Interoperable
Re-usable

Wilkinson, et al., Scientific Data, 2016 <http://doi.org/10.1038/sdata.2016.18>

FAIR is NOT...



- a standard
- equal to open data
- only for humans or only for machines
- only for life sciences

SCIENTIFIC DATA

OPEN
SUBJECT CATEGORIES
» Research data
» Publication
characteristics

**Comment: The FAIR Guiding
Principles for scientific data
management and stewardship**

Mark D. Wilkinson *et al.*[#]



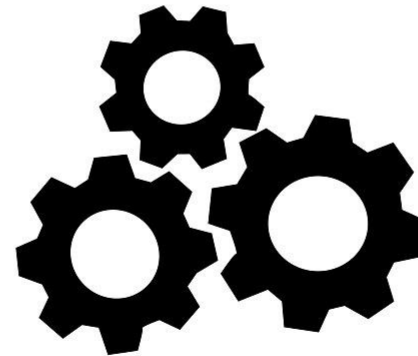
Findable



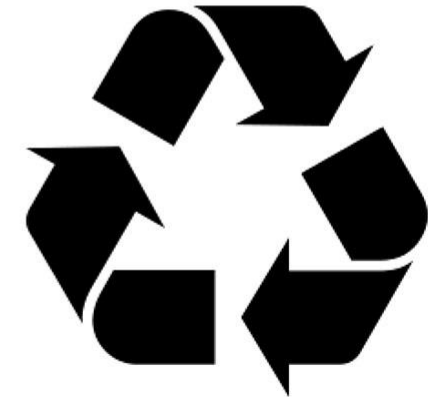
Accessible



Interoperable



Reusable







Curation



Data

Metadata



Archiving

Repositories

FTP Server?

Paper
Publication?

.....

SCIENTIFIC DATA 

OPEN **Comment:** The FAIR Guiding Principles for scientific data management and stewardship

SUBJECT CATEGORIES
• Research data
• Publication characteristics

Mark D. Wilkinson et al.*

<http://www.nature.com/articles/sdata201618>

Curation

Data

Metadata



FAIR (Published) Data

SCIENTIFIC DATA

OPEN **Comment:** The FAIR Guiding Principles for scientific data management and stewardship

<http://www.nature.com/articles/sdata201618>

Findable

Accessible

Inter-operable

Re-usable

Archiving

Repositories

FTP Server?

Paper Publication?

.....

Curation

Data

Metadata

What is a data publication?



- A published dataset equipped with a complete set of metadata.
- It is fully citable by having:
 - a title,
 - authors,
 - abstract and
 - a persistent identifier (usually DOI).
- It can have (but doesn't need to have) a reference to a scientific paper publication.

Correct citation of a data publication: Authors (YYYY): Title. PANGAEA, DOI. **(not only a DOI!!!)**

Example: *Bonne, Jean-Louis; Werner, Martin; Meyer, Hanno; Kipfstuhl, Sepp; Rabe, Benjamin; Behrens, Melanie K; Schönicke, Lutz; Steen-Larsen, Hans-Christian; Tippenhauer, Sandra (2019): Water vapour isotopes analyser calibrated data from POLARSTERN cruise PS93.2 (ARK-XXIX/2.2). PANGAEA, <https://doi.org/10.1594/PANGAEA.897406>*

Benefits of data publication



- Visibility – more citations
- Credibility – more credits
- Exchange – improve accessibility

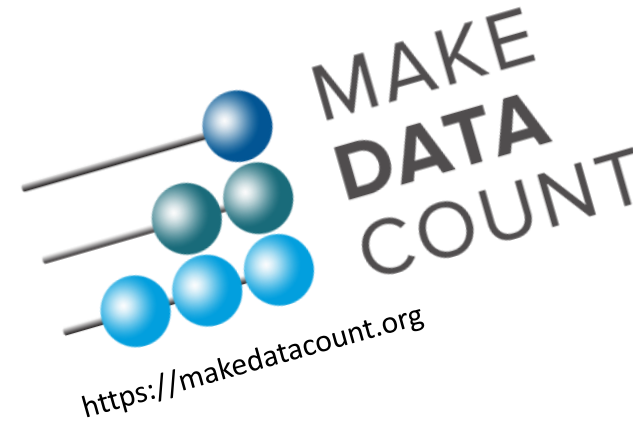


- Visibility – more citations
- Credibility – more credits
- Exchange – improve accessibility

- Data authors ≠ paper authors
 - Acknowledging contributions of scientists, technicians, students, who generated the data, but did not contribute to the interpretation or manuscript writing
 - Authors of datasets: those who contributed to collecting and processing of data
 - Follow the general rules of good scientific practice



- Visibility – more citations
- Credibility – more credits
- Exchange – improve accessibility



Where can data archived and published?



- Paper supplements
 - Incompleteness, permanent accessibility
- ftp server
 - Maintenance & assignment of metadata, file retention time
- Repositories:
 - Institutional Repositories
 - Public Repositories

Where can data archived and published?



- Paper supplements
 - Incompleteness, permanent accessibility
- ftp server
 - Maintenance & assignment of metadata, file retention time
- Repositories:
 - Institutional Repositories
 - **Public Repositories**



- Numerous of public archives & repositories are available
 - Subject specific and data specific (file repositories, structured data repositories)

Public Repositories (selection):

- GFBio
- FAIRdome
- ENA
- Natural history museums
- PANGAEA
- RADAR
- Figshare & Dryad
- Libraries



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Structured Data vs. Unstructured File Repository



	Structured Data Repository e.g. PANGAEA	Unstructured File Repository e.g. DRYAD, figshare, Zenodo
Data Citation - persistent digital identifier		

Structured Data vs. Unstructured File Repository



		Structured Data Repository e.g. PANGAEA	Unstructured File Repository e.g. DRYAD, figshare, Zenodo
Data Citation - persistent digital identifier			
Data Archiving:	Support		
	Quality control Metadata		
	Quality control Data		
Re-Use:	Search Metadata		
	Search Data		
	Data Integration		
	Long Accessibility of data (Format)		
Costs:			



pone.0169576.g001.tif (5.56 MB)

[Download \(5.56 MB\)](#) [Share](#)

E. Gruen, Margaret; Alfaro-Cón
Staicu, Ana-Maria; Duncan X. L.
figshare.

<https://doi.org/10.1371/journa>

46	calico	2	chocolate
47	tortoise	18	lemon
48	tabby	7	chocolate
49	calico	13	lemon
50	black	13	chocolate

This dataset contains more than 50 rows. To see the remaining content please [download the original file](#).

3639051.csv

cat-data.csv (17.71 kB)

MD5: 768fd080430b2fdf8fce8ee7e250f7a6 | [+](#)

[Download \(17.71 kB\)](#) [Share](#) [Cite](#) [Embed](#) [+ Collect \(you need to log in first\)](#)

Mills, Bill (2015): cat-icecream dataset. figshare.
<https://doi.org/10.6084/m9.figshare.2059248.v1>
Retrieved: 11:22, Aug 03, 2017 (GMT)

Place your mouse over the citation
text to select it

cat-icecream dataset

30.12.2015, 02:02 by [Bill Mills](#)

742
views

91
downloads

0
citations

A CSV containing cat-icecream data. Columns in order:

color (string): coat coloration of cat
age (integer): age of cat in years
favorite-icecream (string): favorite ice cream flavor

CATEGORIES

- [Hypersonic Propulsion and Hypersonic Aerodynamics](#)

KEYWORD(S)

[cats](#)

[icecream](#)





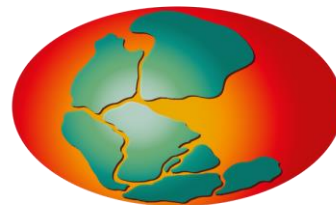
PANGAEA

Data Publisher For Earth And
Environmental Science

Janine Felden & PANGAEA Team




HELMHOLTZ




PANGAEA
Data Publisher for Earth &
Environmental Science •






- 
- A vertical arrow on the left side of the slide, pointing downwards, with the word "TIME" written vertically next to it. The arrow has a color gradient from red at the top to green at the bottom.
- **1987:** Core repository database – file based data system **SEDAT**, later **SEDAN** – Sediment Date Analysis
 - **1994:** Foundation as Information System for long-term archiving and publication of data from earth & environmental science
 - **1997:** Renamed - **PANGAEA - PaleoNetwork for Geological and Environmental Data**
 - **1998:** www.pangaea.de - PANGAEA - Network for Geoscientific and Environmental Data
 - **2010:** Renamed - **PANGAEA - Data Publisher for Earth & Environmental Science**




- 
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PANGAEA in 2022 - Organisation



Hosted by:



Managed by:



**Prof. Dr. Frank
Oliver Glöckner**



Dr. Janine Felden

PANGAEA in 2022 - Organisation



Hosted by:



ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR-
UND MEERESFORSCHUNG



Center for Marine
Environmental Sciences

Managed by:



**Prof. Dr. Frank
Oliver Glöckner**



Dr. Janine Felden

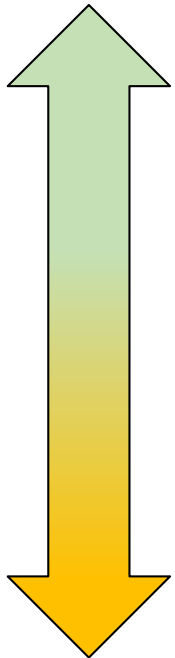
Team:



PANGAEA Front-Office/Back-Office Concept



Front-Office



Back -Office



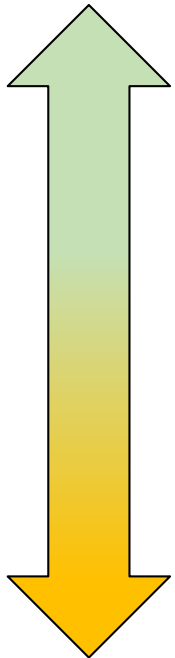
PANGAEA.

Data Publisher for Earth & Environmental Science

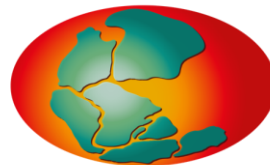
PANGAEA Front-Office/Back-Office Concept



Front-Office



Back -Office



PANGAEA.

Data Publisher for Earth & Environmental Science

Tech-Team

IT –
Infrastructure /
Services

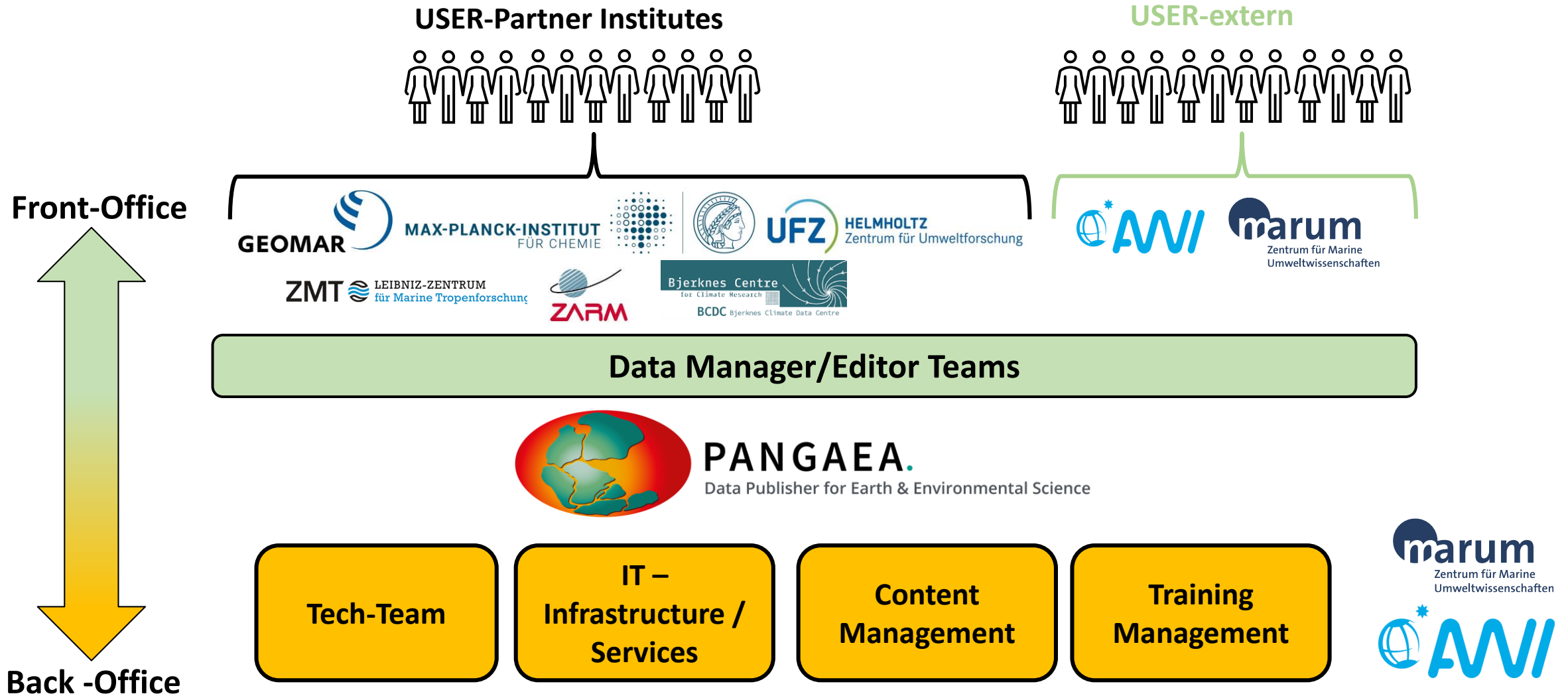
Content
Management

Training
Management

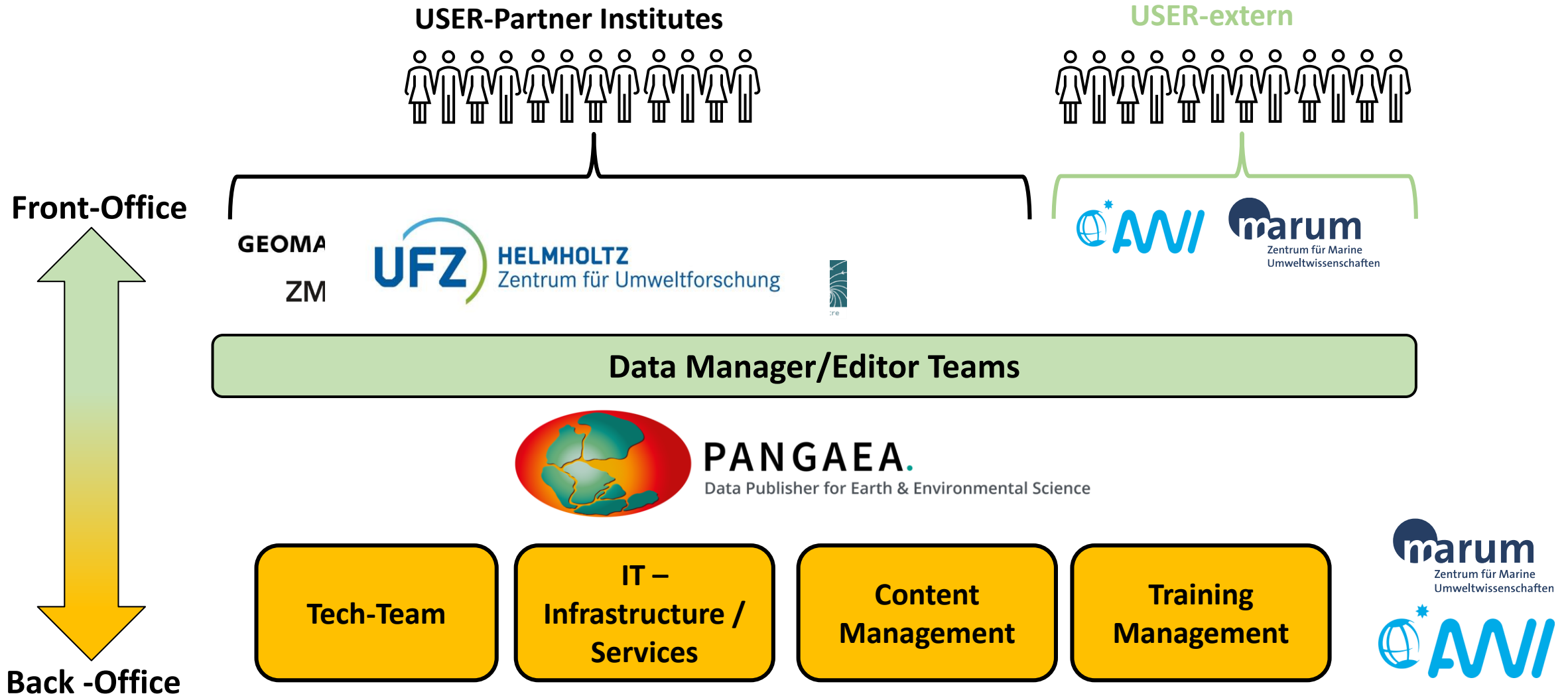
marum
Zentrum für Marine
Umweltwissenschaften



PANGAEA Front-Office/Back-Office Concept



PANGAEA Front-Office/Back-Office Concept



PANGAEA Clients



- Research projects



iAtlantic
INTEGRATED ASSESSMENT OF ATLANTIC
MARINE ECOSYSTEMS IN SPACE AND TIME

hypox
In situ monitoring of
oxygen depletion in hypoxic ecosystems



IODP
INTEGRATED OCEAN
DRILLING PROGRAM



**ARCTIC
PASSION**

Pan-Arctic Observing
System of Systems:
Implementing Observations
for Societal Needs

SUMMER



EURO-BASIN
BASIN SCALE ANALYSIS, SYNTHESIS AND INTEGRATION

- Institutions



ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR-
UND MEERESFORSCHUNG

ZMT LEIBNIZ-ZENTRUM
für Marine Tropenforschung



GEOMAR
Helmholtz Centre for Ocean Research Kiel

marum
Center for Marine
Environmental Sciences

UFZ HELMHOLTZ
Zentrum für Umweltforschung

CENTER OF
APPLIED SPACE TECHNOLOGY
AND MICROGRAVITY



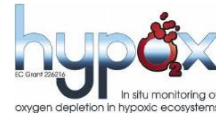
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- Research projects



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INTEGRATED ASSESSMENT OF ATLANTIC
MARINE ECOSYSTEMS IN SPACE AND TIME



In situ monitoring of
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IODP
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Implementing Observations
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BASIN SCALE ANALYSIS, SYNTHESIS AND INTEGRATION

- Institutions



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für Marine Tropenforschung



Center for Marine
Environmental Sciences

UFZ HELMHOLTZ
Zentrum für Umweltforschung



GEOMAR
Helmholtz Centre for Ocean Research Kiel

CENTER OF
APPLIED SPACE TECHNOLOGY
AND MICROGRAVITY



- Individual researchers





- Research projects



Data Managers/
Stewards financed
by projects, working
@PANGAEA (fast)

- Institutions



Front-Office
Back-Office model
(faster, cooperation
contracts)

- Individual researchers



Data Managers/ Editors
financed by AWI/UniHB
(free service/slow
compensation fee
acknowledged)

PANGAEA in 2023 - Content


















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 ICSU World Data System.

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

 <p>CHEMISTRY (133415)</p>	 <p>OCEANS (98224)</p>	 <p>LITHOSPHERE (54451)</p>	 <p>BIOLOGICAL CLASSIFICATION (33659)</p>	 <p>ATMOSPHERE (28643)</p>
 <p>PALEONTOLOGY (27066)</p>	 <p>ECOLOGY (16680)</p>	 <p>BIOSPHERE (7623)</p>	 <p>LAND SURFACE (7387)</p>	 <p>GEOPHYSICS (3613)</p>
 <p>CRYOSPHERE (1462)</p>	 <p>LAKES & RIVERS (686)</p>	 <p>HUMAN DIMENSIONS (476)</p>	 <p>FISHERIES (275)</p>	 <p>AGRICULTURE (135)</p>

PANGAEA in 2023 – Content



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TOPICS

MAP

ALL TOPICS

🔍

CHEMISTRY
(133415)

OCEANS
(98224)

LITHOSPHERE
(54451)

BIOLOGICAL CLASSIFICATION
(33659)

ATMOSPHERE
(28643)

PALEONTOLOGY
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ECOLOGY
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BIOSPHERE
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LAND SURFACE
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GEOPHYSICS
(3613)

CRYOSPHERE
(1462)

LAKES & RIVERS
(686)

HUMAN DIMENSIONS
(426)

FISHERIES
(275)

AGRICULTURE
(135)

Data sets: > 400,000
Data items: > 2.5 billion
Projects: > 790

New datasets per year: ~ 10,000

Year	New Datasets (x 10 ⁹ Datapoints)
1995	0.0
1996	0.0
1997	0.0
1998	0.0
1999	0.0
2000	0.0
2001	0.0
2002	0.0
2003	0.1
2004	0.2
2005	0.5
2006	1.5
2007	2.8
2008	3.5
2009	4.5
2010	5.0
2011	5.8
2012	7.2
2013	8.5
2014	9.5
2015	11.5
2016	13.0
2017	14.0

Janine Felden: PANGAEA - Data Publisher for Earth and Environmental Science

47 HELMHOLTZ



Submit Data

Welcome to PANGAEA® Data Publisher

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ALL TOPICS

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

Topic	Count
CHEMISTRY	133415
OCEANS	98224
LITHOSPHERE	54451
BIOLOGICAL CLASSIFICATION	33659
ATMOSPHERE	28643
PALEONTOLOGY	27066
ECOLOGY	16680
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GEOPHYSICS	3613
CRYOSPHERE	1462
LAKES & RIVERS	686
HUMAN DIMENSIONS	426
FISHERIES	275
AGRICULTURE	135

Data Types:

- Tabular data of e.g. environmental time series, biodiversity, sediment samples...
- Binary files e.g. images, movies, netCDF files...





The screenshot shows a Google search interface with the query "karen helen wiltshire helgoland roads data". The search results are filtered to "All" and show approximately 32,600 results in 0.52 seconds. The top result is from www.awi.de, identifying Prof. Dr. Karen Helen Wiltshire as the Head of Coastal Programme Paces and responsible for Longterm Data Sets Helgoland & Sylt Roads. Below this, two PANGAEA entries are listed, both for hydrochemistry time series data from Helgoland Roads, North, with data contacts at karen.wiltshire@awi.de.

Google karen helen wiltshire helgoland roads data

All News Images Maps Videos More Settings Tools

About 32.600 results (0,52 seconds)

www.awi.de › about-us › organisation › staff › karen-h... ▾
Prof. Dr. Karen Helen Wiltshire - AWI
Head of Coastal Programme Paces; Head of Coastal Ecology Section Responsible for Longterm Data Sets Helgoland & Sylt Roads; Director POGO Center of ...

doi.pangaea.de › PANGAEA.864676 ▾
Hydrochemistry at time series station Helgoland Roads, North ...
Wiltshire, Karen Helen (2016): Hydrochemistry at time series station ... Data contact: Karen Wiltshire (karen.wiltshire@awi.de); analyzed by Kristine Carstens.

doi.pangaea.de › PANGAEA.756613 ▾
Hydrochemistry at time series station Helgoland Roads, North ...
Wiltshire, Karen Helen (2011): Hydrochemistry at time series station ... Data contact: Karen Wiltshire (karen.wiltshire@awi.de); analyzed by Kristine Carstens.

Data Access – Community Portal (e.g. GFBio)



FAIR • Research • Data
Biodiversity, Ecology & Environmental Science

About ▾ Services ▾ Infothek ▾ Events GFBio e.V.

➔ Sign In

plankton|

🔍 FIND DATA



Environmental & Ecological Data



Biodiversity & Collection Data

👤 MEET US!



Plan



Submit



Visualize

Data Access – Community Portal (e.g. GFBio)



The screenshot shows the GFBio website interface. At the top, there is a navigation bar with the GFBio logo and menu items: About, Services, Infotehk, Events, GFBio e.V., and Sign In. Below the navigation bar is a yellow banner with text: "Try out our [Semantic Search](#) that can expand search queries to synonyms and scientific or common names! Why to use a semantic search? Watch this [video](#)! If you want to learn more how to use GFBio's search tools, have a look at our [How-To-Search](#) -Guide."

The main content area features a search bar with the query "plankton" and a magnifying glass icon. Below the search bar, a dropdown menu lists search suggestions: "Plankton Net", "Plankton net", "plankton net", "Planktoniella sol", "PLANKTON NETS", "planktonic foraminifera", "Plankton, wet weighted (Tranter, 1962)", "plankton", "plankton", "Plankton, biomass, wet mass, fractionated", "Plankton abundance", and "Plankton, biovolume".

On the left side, there is a world map with a filter bar below it. The filter bar shows "Filter Results: [clear filters] [reset search]". Below the filter bar, there are sections for "Author" and "Geographical Region". The "Author" section lists: "Piontkovski, Sergey (753)", "Shipboard Scientific Party (744)", "Tara Oceans Consortium, Coordinators (544)", "Tara Oceans Expedition, Participants (543)", "Picheral, Marc (496)", and "More...". The "Geographical Region" section lists: "Atlantic Ocean (2803)" and "North Atlantic Ocean (2036)".

Below the map and filter bar, there is a "Publication Year(s)" section with a range of "1969 - 2021" and a "More..." link.

The search results are displayed in a list format. The first result is "Plankton, biomass, wet mass, fractionated" with a "Data Center" of "PANGAEA: Data Publisher for Earth & Environmental Science". The "Summary" is "Phytoplankton, microzooplankton, copepod and dissolved nutrient data from a mesocosm experiment, which took place in summer 2016. A range of Si:N ratios and two levels of copepod g...(+)" and the "License/Rights" is "CC-BY-4.0: Creative Commons Attribution 4.0 International". Below the summary are links for "Data Description" and "Data Download".

The second result is "WaMS Marine plankton 18S diversity (2015)" with a "Data Center" of "European Nucleotide Archive". The "Summary" is "Diversity of Plankton in marine surface water". Below the summary are links for "Data Description" and "Data Download".

The third result is "plankton Raw sequence reads (2016)" with a "Data Center" of "European Nucleotide Archive". The "Summary" is "silver stress on plankton". Below the summary are links for "Data Description" and "Data Download".

The fourth result is "Plankton sample collected from Nanaimo Harbour Targeted Locus (Loci) (2014)" with a "Data Center" of "European Nucleotide Archive". The "Summary" is "Nanaimo Harbour, BC, Canada (plankton SSU library 454 sequencing)". Below the summary are links for "Data Description" and "Data Download".

On the right side of the search results, there is a "Check All" checkbox, "Previous" and "Next" navigation buttons, and a "FEEDBACK!" button.

Data Access – Community Portal (e.g. GFBio)



About ▾ Services ▾ Infothek ▾ Events GFBio e.V. [Sign In](#)

Search:

Show entries per page Check All

Showing 1 to 10 of 9,939 entries [Previous](#) [Next](#)

[Eukaryotic Plankton Raw sequence reads \(2019\)](#)
Data Center: European Nucleotide Archive
Summary: Effects of harmful algal blooms on plankton community
[Data Description](#)

[Makareviciute-Fichtner, Kriste; Matthiessen, Birte; Lotze, Heike K; Sommer, Ulrich \(2020\): Plankton and dissolved nutrient data from 2016 mesocosm experiment manipulating Si:N and copepod grazing on Baltic Sea plankton community](#)
Data Center: PANGAEA: Data Publisher for Earth & Environmental Science
Summary: **Phytoplankton, microzooplankton, copepod and dissolved nutrient data from a mesocosm experiment, which took place in summer 2016. A range of Si:N ratios and two levels of copepod g...(+)**
License/Rights: CC-BY-4.0: Creative Commons Attribution 4.0 International
[Data Description - Data Download](#)

[WaMS Marine plankton 18S diversity \(2015\)](#)
Data Center: European Nucleotide Archive
Summary: Diversity of Plankton in marine surface water
[Data Description](#)

[plankton Raw sequence reads \(2016\)](#)
Data Center: European Nucleotide Archive
Summary: silver stress on plankton
[Data Description](#)

[Plankton sample collected from Nanaimo Harbour Targeted Locus \(Loci\) \(2014\)](#)
Data Center: European Nucleotide Archive
Summary: Nanaimo Harbour, BC, Canada (plankton SSU library 454 sequencing)
[Data Description](#)

Filter Results: [clear filters](#) | [reset search](#)

Author



- [Piontkovski, Sergey\(753\)](#)
- [Shipboard Scientific Party\(744\)](#)
- [Tara Oceans Consortium, Coordinators\(543\)](#)
- [Tara Oceans Expedition, Participants\(543\)](#)
- [Picheral, Marc\(496\)](#)
- [More...](#)

Publication Year(s): **1969 - 2021**

[More...](#)

Geographical Region

- [Atlantic Ocean\(2803\)](#)
- [North Atlantic Ocean\(2036\)](#)

[FEEDBACK!](#)



PANGAEA.

Data Publisher for Earth & Environmental Science



Submit
Data



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 ICSU World Data System.

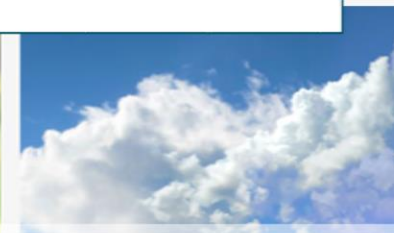
ALL TOPICS ▼

König-Langlo,Gert

König-Langlo, Gert



TOPICS





The screenshot shows the PANGAEA webportal interface. At the top, there is a search bar with the text 'König-Langlo, Gert' and a search button. The page title is 'PANGAEA.' and the user 'Janine Felden' is logged in. Below the search bar, there are navigation links: 'SEARCH', 'SUBMIT', 'ABOUT', and 'CONTACT'. The main content area displays '17873 datasets found on search for »König-Langlo, Gert«'. On the left, there are filter options for 'Dataset Author', 'Dataset Publication Year', 'Topic', and 'Project'. The main list shows seven search results, each with a title, size, and a DOI link. On the right, there is a map interface with 'Map' and 'Satellite' buttons, a search box, and date range filters.

PANGAEA.

Janine Felden

ALL TOPICS König-Langlo, Gert

SEARCH SUBMIT ABOUT CONTACT

Filter by...

17873 datasets found on search for »König-Langlo, Gert«

SHOW MAP GOOGLE EARTH DATA WAREHOUSE

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

Dataset Author

- König-Langlo, Gert (17830)
- Gernandt, Hartwig (427)
- Herber, Andreas (247)
- Maturilli, Marion (225)
- WOCE Surface Meteorology Data, WOCEMET (25)
- Sieger, Rainer (13)
- Jakobs, Constantijn L (12)
- Nicolaus, Marcel (11)
- more...

Dataset Publication Year

- 2020 (15)
- 2019 (16)
- 2018 (1)
- 2017 (216)
- 2016 (562)
- 2015 (522)
- 2014 (609)
- 2013 (727)
- more...

Topic

- Chemistry (1421)
- Inorganic Chemistry (1421)
- Atmosphere (954)
- Geosciences, Multidisciplinary (413)
- Lithosphere (413)
- Ecology (387)
- Environmental Sciences (387)
- Geography (20)
- more...

Project

- König-Langlo, G (2016):** Upper air soundings during POLARSTERN cruise PS97 (ANT-XXXI/3)
Size: 46 datasets
<https://doi.org/10.1594/PANGAEA.861659> - Score: 70.54
- König-Langlo, G (1994):** Upper air soundings during POLARSTERN cruise ANT-IX/5
Size: 38 datasets
<https://doi.org/10.1594/PANGAEA.849784> - Score: 70.54
- König-Langlo, G (1991):** Upper air soundings during POLARSTERN cruise ARK-VIII/1
Related to: **Thiede, J; Hempel, G (1991):** Die Expedition ARKTIS-VIII/1 mit FS Polarstern 1990 (The Expedition ARKTIS-VIII/1 of RV POLARSTERN in 1990). *Berichte zur Polarforschung = Reports on Polar Research*
Size: 28 datasets
<https://doi.org/10.1594/PANGAEA.852697> - Score: 70.54
- König-Langlo, G (1995):** Upper air soundings during POLARSTERN cruise ANT-XII/4
Size: 44 datasets
<https://doi.org/10.1594/PANGAEA.849776> - Score: 70.54
- König-Langlo, G (1994):** Upper air soundings during POLARSTERN cruise ARK-IX/1b
Related to: **Eicken, H; Meincke, J (1994):** The Expedition ARKTIS-IX/1 of RV Polarstern in 1993. *Berichte zur Polarforschung = Reports on Polar Research*
Size: 49 datasets
<https://doi.org/10.1594/PANGAEA.851350> - Score: 70.54
- König-Langlo, G (1985):** Upper air soundings during POLARSTERN cruise ANT-III/3
Related to: **Hempel, G (1985):** Die Expedition ANTARKTIS-III mit FS Polarstern 1984/85. *Berichte zur Polarforschung = Reports on Polar Research*
Size: 42 datasets
<https://doi.org/10.1594/PANGAEA.853628> - Score: 70.54
- König-Langlo, G (2015):** Upper air soundings during POLARSTERN cruise PS95.2 (ANT-XXXI/1.2)
Size: 18 datasets
<https://doi.org/10.1594/PANGAEA.856031> - Score: 70.54

Map Satellite

Google

Map data ©2020 Imagery ©2020 NASA | 1000 km | Terms of Use

To create a new geographic search coverage, use the buttons and input fields to enter coordinates below. The GPS button (top-left of wind rose) selects the area around your current location. For using the map, select the viewport button (top-right of wind rose) and drag or zoom the bounding rectangle on its borders. You can also select a date range by entering a start/end date. Press "Apply" to restrict current search results!

N

W E

Clear S

Start date:

End date:



The screenshot shows the PANGAEA website interface. At the top, there is a search bar containing 'Temperature Oxygen Nitrate' and a search button. The user 'Janine Felden' is logged in. Below the search bar, there are navigation links: 'SEARCH', 'SUBMIT', 'ABOUT', and 'CONTACT'. The main content area displays '4317 datasets found on search for »Temperature Oxygen Nit...« with facet filters'. There are buttons for 'SHOW MAP', 'GOOGLE EARTH', and 'DATA WAREHOUSE', with a red arrow pointing to 'DATA WAREHOUSE'. A pagination bar shows page numbers from 1 to 10. The left sidebar contains filter options for 'Atlantic Ocean', 'Dataset Author', 'Dataset Publication Year', 'Topic', and 'Project'. The main content area lists four dataset entries, each with a title, description, related information, size, and DOI link. A map interface is visible on the right side, showing a world map with a red arrow pointing to the 'DATA WAREHOUSE' button. The map interface includes a 'Map' button, a 'Satellite' button, a 'Google' logo, and a 'Terms of Use' link. Below the map, there is a text box explaining how to create a new geographic search coverage, and a form with input fields for 'N', 'W', 'E', and 'S', along with 'Clear' and 'Apply' buttons.

PANGAEA

ALL TOPICS

SEARCH SUBMIT ABOUT CONTACT

Janine Felden

Filter by...

4317 datasets found on search for »Temperature Oxygen Nit...« with facet filters

SHOW MAP GOOGLE EARTH DATA WAREHOUSE

1 2 3 4 5 6 7 8 9 10

- WOCE Hydrographic Programme, WHP (2002):** Hydrochemistry measured on water bottle samples during Capitan Oca Balda cruise 08BD0491_1 on section AR08
Related to: **WOCE (2002):** World Ocean Circulation Experiment, Global Data, Version 3.0. *WOCE International Project Office, WOCE Report, Southampton, UK; published by U.S. National Oceanographic Data Center, Silver Spring*
Size: 1443 data points
<https://doi.org/10.1594/PANGAEA.837536> - Score: 16.9
- WOCE Hydrographic Programme, WHP (2002):** Hydrochemistry measured on water bottle samples during El Austral cruise 08EA0192_1 on section AR08
Related to: **WOCE (2002):** World Ocean Circulation Experiment, Global Data, Version 3.0. *WOCE International Project Office, WOCE Report, Southampton, UK; published by U.S. National Oceanographic Data Center, Silver Spring*
Size: 1519 data points
<https://doi.org/10.1594/PANGAEA.837535> - Score: 16.9
- WOCE Hydrographic Programme, WHP (2002):** Hydrochemistry measured on water bottle samples during HOLMBERG cruise 08EH0492_1 on section AR08
Related to: **WOCE (2002):** World Ocean Circulation Experiment, Global Data, Version 3.0. *WOCE International Project Office, WOCE Report, Southampton, UK; published by U.S. National Oceanographic Data Center, Silver Spring*
Size: 1388 data points
<https://doi.org/10.1594/PANGAEA.837533> - Score: 16.9
- WOCE Hydrographic Programme, WHP (2002):** Hydrochemistry measured on water bottle samples during Capitan Oca Balda cruise 08BD0993_1 on section AR08
Related to: **WOCE (2002):** World Ocean Circulation Experiment, Global Data, Version 3.0. *WOCE International Project Office, WOCE Report, Southampton, UK; published by U.S. National Oceanographic Data Center, Silver Spring*

Dataset Author
WOCE Upper Ocean Thermal, UOT (4171)
WOCE Hydrographic Programme, WHP (138)
Fahrbach, Eberhard (4)
Rohardt, Gerd (4)
Gouriou, Yves (2)
Mercier, Herlé (2)
Bersch, Manfred (1)

Dataset Publication Year
 2010 (8)
 2006 (1564)
 2005 (2603)
 2002 (138)
 1996 (1)
 1993 (1)
 1991 (1)
 1990 (1)

Topic
Chemistry (4312)
Inorganic Chemistry (11)
Animalia (10)
Arthropoda (10)
Biological Classification (10)
Organic Chemistry (2)

Project

Map Satellite

Google

To create a new geographic search coverage, use the buttons and input fields to enter coordinates below. The GPS button (top-left of wind rose) selects the area around your current location. For using the map, select the viewport button (top-right of wind rose) and drag or zoom the bounding rectangle on its borders. You can also select a date range by entering a start/end date. Press "Apply" to restrict current search results!

Clear S Apply



Available Parameters and Geocodes

Page 1 of 4 < prev 1 2 3 4 next >

Score	Parameter/Geocode
100.0%	DATE/TIME
76.7%	DEPTH, water [m]
69.6%	ELEVATION
54.4%	EVENT LOG
35.9%	LATITUDE
29.7%	LONGITUDE
27.0%	Oxygen [µmol/l]
16.9%	Temperature
15.9%	Bottle number
15.4%	Silicate [µmol/l]
14.8%	Phosphorus
10.9%	Sample ID
10.9%	Freon-11 [pmol/l]
8.8%	Freon-12 [pmol/l]
8.8%	Nitrate [µmol/l]

Implicit averaging
 Calculate standard deviation
Download data in the following format:

Configuration

Page 1 of 1 < prev 1 next >

Parameter/Geocode	Method
DATE/TIME	
DEPTH, water [m]	
ELEVATION	
EVENT LOG	
LATITUDE	
LONGITUDE	
Oxygen [µmol/l]	
Temperature	
Bottle number	
Silicate [µmol/l]	
Phosphorus	
Sample ID	
Freon-11 [pmol/l]	
Freon-12 [pmol/l]	
Nitrate [µmol/l]	

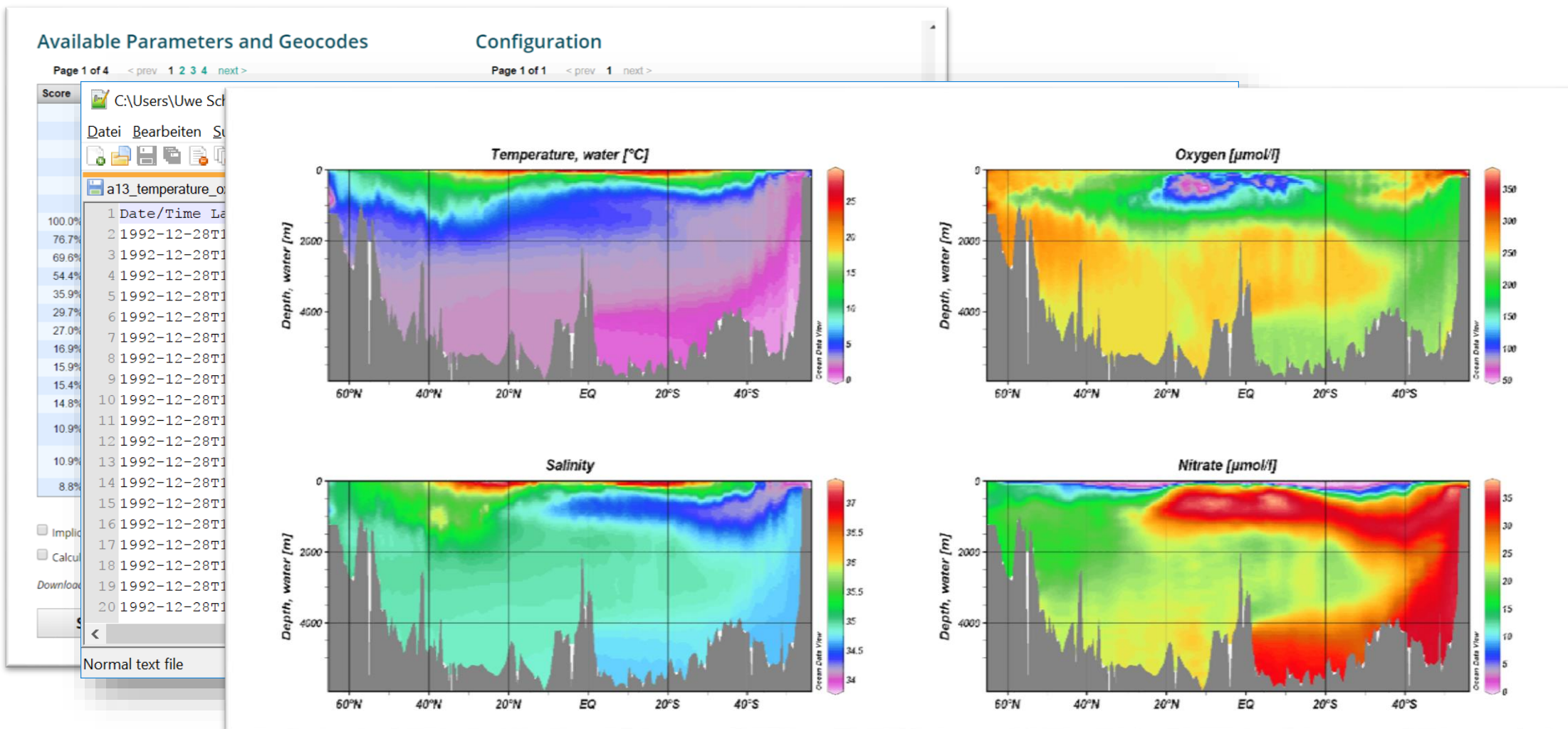
C:\Users\Uwe Schindler\Desktop\a13_temperature_oxygen_nitrate.tab - Notepad++

Datei Bearbeiten Suchen Ansicht Kodierung Sprachen Einstellungen Makro Ausführen TextFX Erweiterungen Fenster ?

a13_temperature_oxygen_nitrate.tab

1	Date/Time	Latitude	Longitude	Depth water [m]	Temp [°C]	Sal	O2 [µmol/l]	NO3 [µmol/l]	Origin of Values
2	1992-12-28T15:06:00	-25.645000	-42.175000	2231.2	3.0820	34.9420		https://doi.pangaea.de/10.1594/PANGAEA.836809	
3	1992-12-28T15:06:00	-25.645000	-42.175000	2233.2	3.0720	34.9410		https://doi.pangaea.de/10.1594/PANGAEA.836809	
4	1992-12-28T15:06:00	-25.645000	-42.175000	2234.1	3.0770	34.9420		https://doi.pangaea.de/10.1594/PANGAEA.836809	
5	1992-12-28T15:06:00	-25.645000	-42.175000	2234.1		34.9400		https://doi.pangaea.de/10.1594/PANGAEA.836809	
6	1992-12-28T15:06:00	-25.645000	-42.175000	2235.1	3.0680	34.9420		https://doi.pangaea.de/10.1594/PANGAEA.836809	
7	1992-12-28T15:06:00	-25.645000	-42.175000	2235.1	3.0680	34.9390		https://doi.pangaea.de/10.1594/PANGAEA.836809	
8	1992-12-28T15:06:00	-25.645000	-42.175000	2235.1		34.9410		https://doi.pangaea.de/10.1594/PANGAEA.836809	
9	1992-12-28T15:06:00	-25.645000	-42.175000	2236.1		34.9400		https://doi.pangaea.de/10.1594/PANGAEA.836809	
10	1992-12-28T15:06:00	-25.645000	-42.175000	2236.1	3.0670	34.9420		https://doi.pangaea.de/10.1594/PANGAEA.836809	
11	1992-12-28T15:06:00	-25.645000	-42.175000	2236.1		34.9410		https://doi.pangaea.de/10.1594/PANGAEA.836809	
12	1992-12-28T15:06:00	-25.645000	-42.175000	2236.1	3.0650	34.9410		https://doi.pangaea.de/10.1594/PANGAEA.836809	
13	1992-12-28T15:06:00	-25.645000	-42.175000	2237.1	3.0670	34.9420		https://doi.pangaea.de/10.1594/PANGAEA.836809	
14	1992-12-28T15:06:00	-25.645000	-42.175000	2237.1		34.9400		https://doi.pangaea.de/10.1594/PANGAEA.836809	
15	1992-12-28T15:06:00	-25.645000	-42.175000	2238.1	3.0670	34.9420		https://doi.pangaea.de/10.1594/PANGAEA.836809	
16	1992-12-28T15:06:00	-25.645000	-42.175000	2239.0	3.0630	34.9410		https://doi.pangaea.de/10.1594/PANGAEA.836809	
17	1992-12-28T15:06:00	-25.645000	-42.175000	2239.0	3.0690	34.9400		https://doi.pangaea.de/10.1594/PANGAEA.836809	
18	1992-12-28T15:06:00	-25.645000	-42.175000	2239.0		34.9420		https://doi.pangaea.de/10.1594/PANGAEA.836809	
19	1992-12-28T15:06:00	-25.645000	-42.175000	2240.0		34.9400		https://doi.pangaea.de/10.1594/PANGAEA.836809	
20	1992-12-28T15:06:00	-25.645000	-42.175000	2240.0	3.0630	34.9420		https://doi.pangaea.de/10.1594/PANGAEA.836809	

Normal text file length : 138708758 lines : 1252876 Ln : 1 Col : 1 Sel : 0 | 0 UNIX UTF-8 IN



(Meta-)Data Access & Re-Use for Data Science



- Offering various entry points to explore and re-use data (frontend, APIs, community specific portals...)
- Support of commonly used tools (e.g. **Python** and **R**)

The image shows a composite of two web interfaces. On the left is the PANGAEA website, featuring a globe logo and the text "PANGAEA. Data Publisher for Earth & Environmental Science". The website has a navigation bar with "SEARCH", "SUBMIT", "ABOUT", and "CONTACT". Below the navigation bar, there is a "Tools" section with sub-sections for "Advanced Search Tools", "Data Discovery and Retrieval tools for Scripting Languages", and "Other tools provided by PANGAEA". The "Advanced Search Tools" section describes the PANGAEA Data Warehouse and provides instructions for using the search interface. The "Data Discovery and Retrieval tools for Scripting Languages" section lists tools like pangaeapy and pangaear. The "Other tools provided by PANGAEA" section describes the BSRN Toolbox. On the right is a Jupyter Notebook interface titled "Lorenz Differential Equations". The notebook contains text explaining the Lorenz system, its equations, and its chaotic behavior. It also shows a code cell with a plot of the Lorenz attractor, a set of sliders for parameters like angle, max_time, sigma, beta, and rho, and a warning message about not relying on the server.

PANGAEA.
Data Publisher for Earth & Environmental Science

SEARCH SUBMIT ABOUT CONTACT

Tools

Advanced Search Tools

The **PANGAEA Data Warehouse** can be used for highly efficient retrievals and compilations of time slices or surface data matrixes on any measurement parameters out of the whole data continuum. To start a data warehouse query, go to PANGAEA's [start page](#) and enter some search keywords to make a selection. Once you have filtered the search results, click on the **Data Warehouse** button in the tools bar, to start the tool.

If you want use the data warehouse API, see our [interoperability / services](#).

Data Discovery and Retrieval tools for Scripting Languages

The following tools are provided as open source libraries / plugins for your favourite scripting language. They are provided by the community and PANGAEA cannot provide support for them. Pl on the linked web pages and issue trackers. Documentation is also provided externally.

- **pangaeapy**: This **Python 3** package allows to download and analyse metadata as well as data from tabular PANGAEA datasets. It can be installed using `pip install pangaeapy`, e.g. in [Jupyter Notebooks](#). This package is maintained by Robert Huber (PANGAEA).
- **pangaear**: This **R** package is a data retrieval interface for PANGAEA. It supports querying metadata and downloading of tabular PANGAEA datasets. It can be installed using `install.packages("pangaear")` in [R](#) or `install.packages("pangaear", repos="https://pangaea.github.io/r-pangaear")` in [Jupyter Notebooks](#). Source code is hosted on [GitHub](#). This package is maintained by [rOpenSci](#).

Other tools provided by PANGAEA

The software below is provided by PANGAEA for the visualization, exploration and interpretation of scientific data. The tools are open source; its use in combination with the PANGAEA Information System is recommended.

- **BSRN Toolbox**: The **Baseline Surface Radiation Project (BSRN)** makes use of the so called *station-to-archive format* to share the data of one station for one month with the BSRN community. The BSRN Toolbox was developed to convert this format to more readable dataset tables and for creating PANGAEA import files. These tables can be opened in a spreadsheet program like Microsoft Excel or OpenOffice and with PanPlot to visualize the data very easily. With a download manager users can download station-to-archive files from the BSRN ftp-server to the local computer system. The tool can be installed on the local machine and provides a **QT** based graphical user interface.

Binary downloads are available for: [Windows](#), [macOS](#), [Linux \(x86-64\)](#) – source code is hosted on [GitHub](#).

Welcome to the Jupyter Notebook

This Notebook Server was started on 2017-01-01 10:00:00. Your server is hosted on a JupyterLab server.

WARNING
Don't rely on this server for long-term storage of your work.

Run some Python code

To run the code below:

1. Click on the cell to select it.
2. Press **SHIFT+ENTER**.

A full tutorial for using the Jupyter Notebook is available at [https://jupyter.org/](#)

```
In [ ]: matplotlib inline
import pandas as pd
import numpy as np
import matplotlib
```

Exploring the Lorenz System

In this Notebook we explore the **Lorenz system** of differential equations:

$$\begin{aligned} \dot{x} &= \sigma(y - x) \\ \dot{y} &= \rho x - y - xz \\ \dot{z} &= -\beta z + xy \end{aligned}$$

This is one of the classic systems in non-linear differential equations. It exhibits a range of complex behaviors as the parameters (σ, ρ, β) are varied, including what are known as chaotic solutions. The system was originally developed as a simplified mathematical model for atmospheric convection in 1963.

```
In [ 7 ]: interact(Lorenz, N=Fixed(10), angle=(0.,360.),
                 sigma=(0.0,50.0), rho=(0.,3), p=(0.0,50.0))
```

Parameter	Value
angle	308.2
max_time	12
sigma	10
rho	2.6
p	28



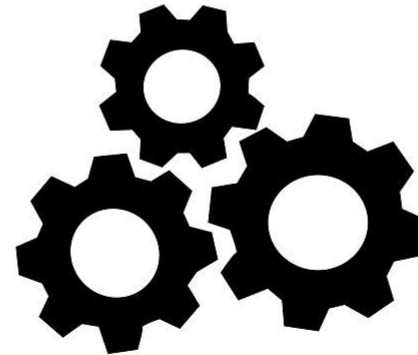
Findable



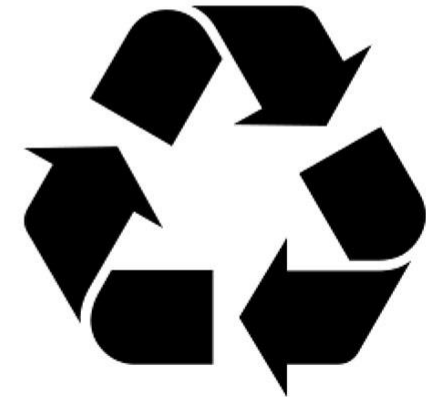
Accessible



Interoperable



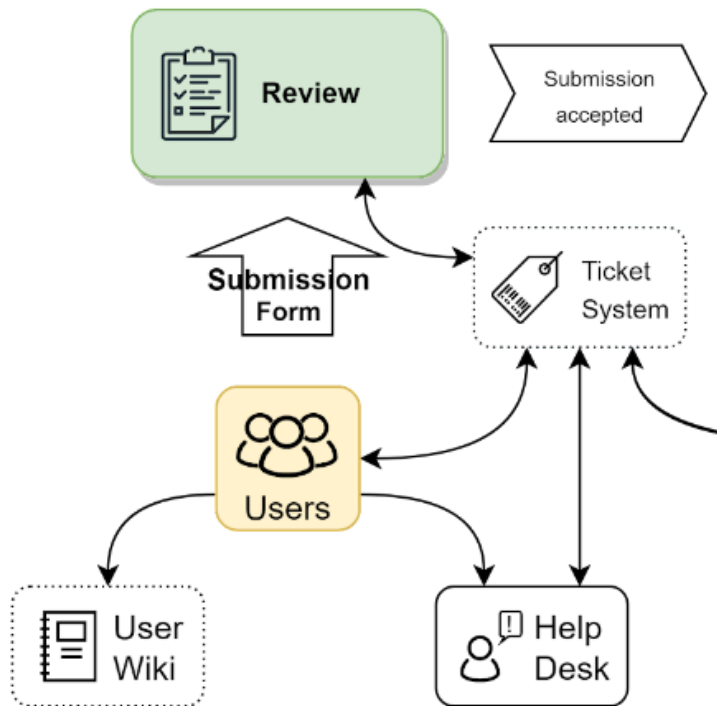
Reusable



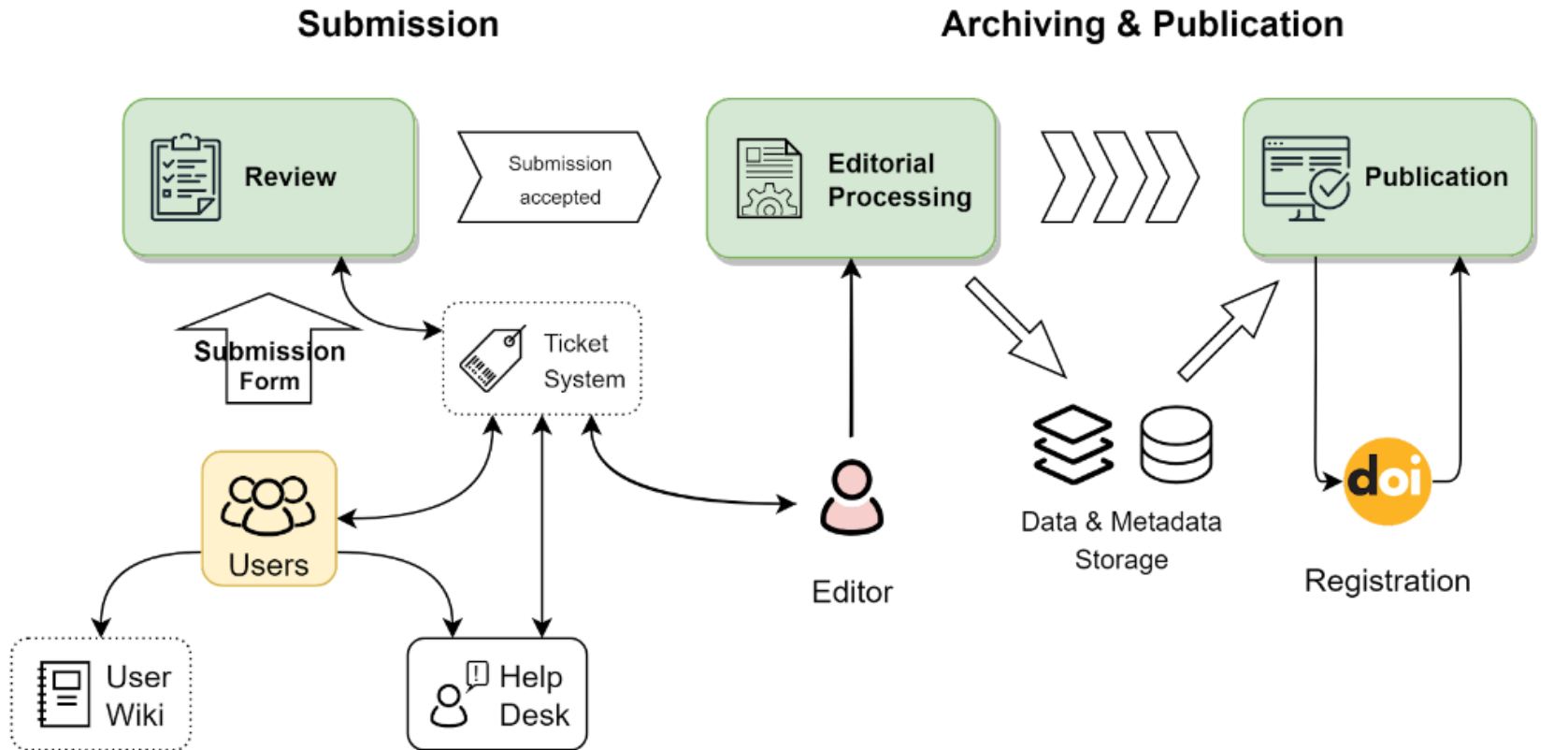
Simplified data publication workflow



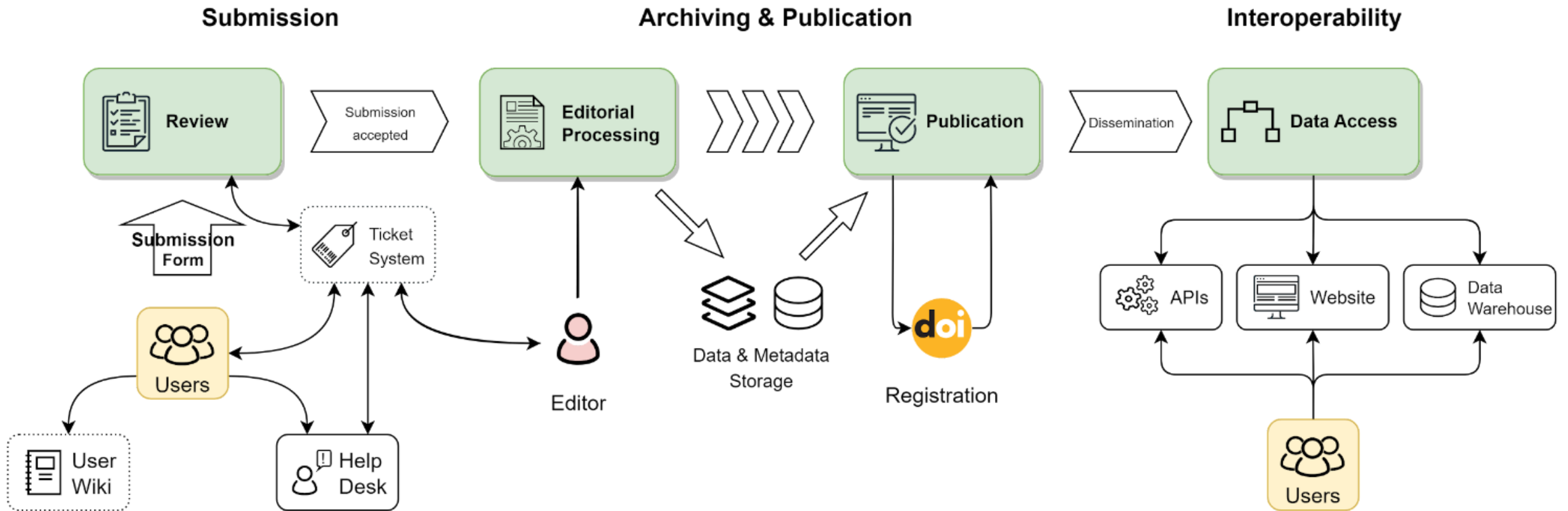
Submission



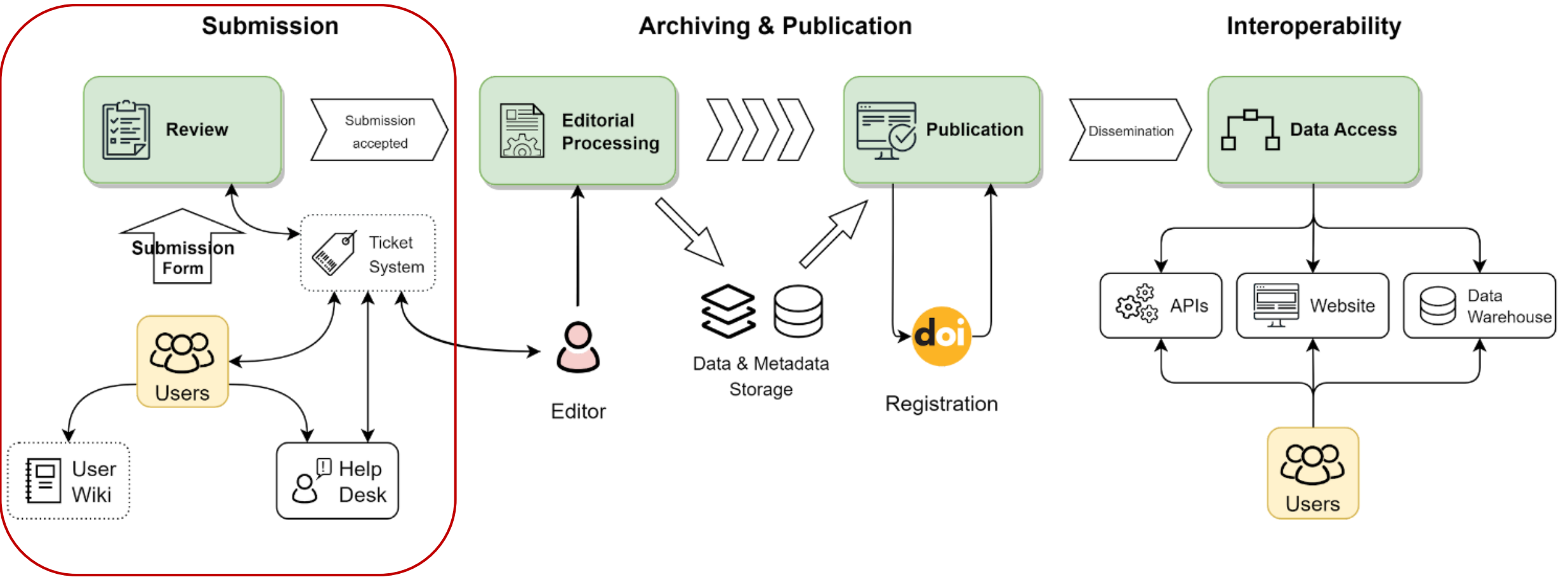
Simplified data publication workflow



Simplified data publication workflow

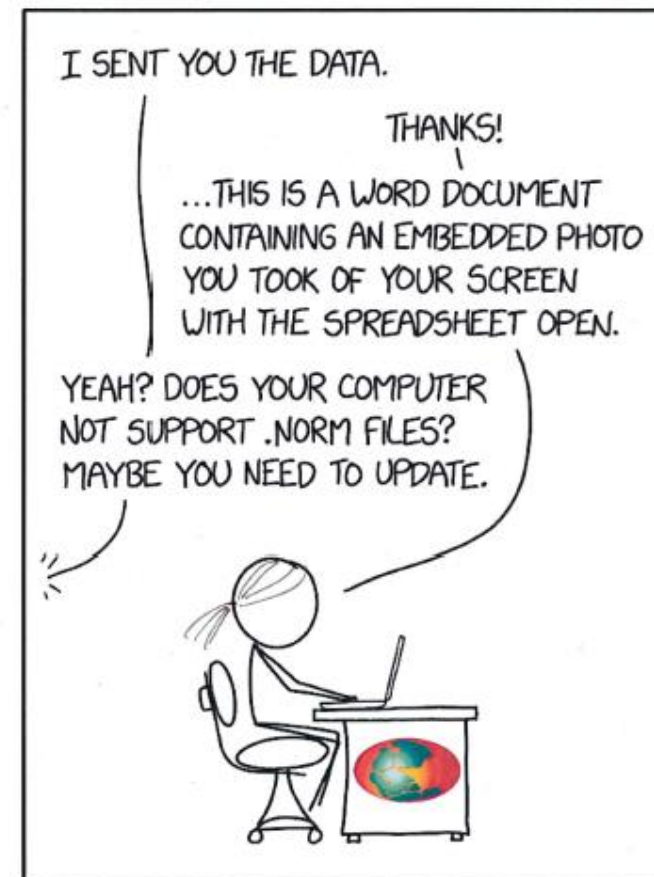


Simplified data publication workflow





...to minimize the preparatory work prior to upload



SINCE EVERYONE SENDS STUFF THIS WAY ANYWAY, WE SHOULD JUST FORMALIZE IT AS A STANDARD.

Altered from xkcd: [.NORM Normal File Format](#)

Data Submission – Metadata



What?



Parameter [unit]

Who?



Author(s),
PI, Article

Where?



Latitude/Longitude
Depth in ice/water/
sediment; Altitude...

When?



Date,
Age...

How?



Method

Please Specify Metadata



Page [Discussion](#) [Read](#) [Edit](#) [Edit source](#) [View history](#) [☆](#) [More](#)

Best practice manuals and templates

Best practice manuals and templates

Contents [\[hide\]](#)

- 1 [Best practice manuals and templates](#)
 - 1.1 [Page content](#)
 - 1.2 [Research domain](#)

Page content [\[edit\]](#) [\[edit source\]](#)

To standardize data in PANGAEA, this page will contain a collection of best practice manuals & submission templates for submissions of certain frequent types of data. Standardized data are a requirement for FAIR data. There are more templates to come.

Research domain [\[edit\]](#) [\[edit source\]](#)

[Biological data](#)

[Chemical data](#)

[Geology data](#)

- [Vertical sediment profile](#)

[Geophysical data](#)

- [Multibeam echosounder data \(incl. SVP, MBES water column data\) & Side-scan sonar data & bathymetry model data \(\[Bathymetry\]\(#\)\)](#)
- [Sediment echosounder data \(e.g. Atlas Parasound P70 echosounder data\) \(\[Sediment_echosounder\]\(#\)\)](#)

[Meteorological data](#)

[Oceanography data](#)

- [ADCP Underway Data](#)
- [Bio-optical Sensors Underway Data](#)
- [CTD Underway Data](#)
- [Ferrybox Underway Data](#)
- [TSG Underway Data](#)

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Best practice manuals and templates

Best practice

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- 1 Best practice manuals and templates
 - 1.1 Page content
 - 1.2 Research domain

Page content [edit | edit source]

To standardize data in PANGAEA, this page will contain a list of frequent types of data. Standardized data are a requirement for data submission.

Research domain [edit | edit source]

Biological data

Chemical data

Geology data

- Vertical sediment profile

Geophysical data

- Multibeam echosounder data (incl. SVP, MBES water column data)
- Sediment echosounder data (e.g. Atlas Parasound P7000)

Meteorological data

Oceanography data

- ADCP Underway Data
- Bio-optical Sensors Underway Data
- CTD Underway Data
- Ferrybox Underway Data
- TSG Underway Data

Page Discussion

Bathymetry

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- 2 DAM Underway research data project background
- 3 PANGAEA Bathymetry Web Map services
- 4 Standardized content of datasets
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- 5 Standardized Metaheader
 - 5.1 Standardized Authors
 - 5.2 Standardized Title
 - 5.3 Standardized Abstract
 - 5.3.1 Raw data (example)
 - 5.3.2 Processed data (example)
 - 5.4 Standardized usage of Reference
 - 5.5 Standardized Coverage
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 - 5.6.1 Underway event
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- 6 Example datasets
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- 7 How to submit data bathymetry data to PANGAEA and what to do?
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 - 7.2 Processed data
 - 7.3 PANGAEA Data Submission Form Example



Page content (please note) [edit | edit source]

Please note, **bathymetry data curation SOPs** in PANGAEA with respect to **FAIR data principles** (<https://doi.org/10.1038/sdata.2016.18>) are currently revised within the scope of the German Marine Research Alliance (DAM) Underway research data project (<https://www.allianz-meeresforschung.de/>). This page and the information provided here is addressed to PANGAEA users and data submitters. **PANGAEA's Metaheader** explicitly for bathymetry datasets and other data curation requirements are explained on this page. In addition, data management at PANGAEA and requirements for bathymetry data submission to PANGAEA are documented. This page is mainly made for bathymetry data from multibeam echosounder data (MBES), however can also be used for data from Satellite derived bathymetry (SDB) or *Light Detection and Ranging (LIDAR)* data.

"Please note, that this page may still be revised in the future"

DAM Underway research data project background [edit | edit source]

The **German Marine Research Alliance (DAM)** is a combined effort to exploit the full potential of German research vessels as mobile measuring platforms and currently involves 19 institutions and research facilities in Germany. The Underway research data project is part of DAM core area *data management and digitalization* (<https://www.allianz-meeresforschung.de/en/activities/data-management-and-digitalization/>).



Image by SangyaPundir / CC BY-SA
(<https://creativecommons.org/licenses/by-sa/4.0/>)
"https://commons.wikimedia.org/wiki/File:FAIR_data_principles.jpg"



<https://www.allianz-meeresforschung.de/en/>



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Best practice manuals and templates

Best practice

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- 1 Best practice manuals and templates
 - 1.1 Page content
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Biological data

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Page content (please note) [edit | edit source]

Please note, **bathymetry data curation SOPs** in PANGAEA with respect to **FAIR data principles** the scope of the German Marine Research Alliance (DAM) Underway research data project ([http://www.dam-marine.de](#)) information provided here is addressed to PANGAEA users and data submitters. **PANGAEA's Meta** requirements are explained on this page. In addition, data management at PANGAEA and required information is provided. This page is mainly made for bathymetry data from multibeam echosounder data (MBES), however also for *Light Detection and Ranging (LIDAR)* data.

"Please note, that this page may still be revised in the future"

DAM Underway research data project background [edit | edit source]

The **German Marine Research Alliance (DAM)** is a combined effort to exploit the full potential of the facilities in Germany. The Underway research data project is part of DAM core area *data management*.

Page Discussion

Read Edit Edit source View history More

Search PANGAEA Wiki

Biology

Please use the templates when preparing your data and first read: [Data submission](#). The following defines frequent data types and summarizes how to prepare biological data collected in the field or laboratory for submission to PANGAEA. Please note the following:

- In addition to the biological data, the georeferenced contextual data such as conductivity, temperature and depth data (CTD), pH value, humidity, etc. should also be submitted to and archived at PANGAEA. If these data are archived and available in open access somewhere else, please provide the DOI link in the references box of the web submission form.
- The PANGAEA record should be understandable in itself, i.e. a potential user of the data should be able to judge quality and suitability for reuse. Thus, the record should be rich in metadata.
- The title(s), abstract(s) and keywords will need to be pasted into the web interface.
- For a complete data submission, upload all of the three tables included in the templates, i.e. the events, parameters and data tables.

Contents [hide]

- 1 Data types and templates
 - 1.1 Field observations/biodiversity
 - 1.2 Field experiments (including e.g. mesocosm studies)
 - 1.3 Laboratory experiments (including e.g. ship-based experiments)
 - 1.4 Molecular biology
- 2 Metadata and Data
 - 2.1 Metadata – Abstract
 - 2.2 Metadata – Keywords
 - 2.3 Metadata – Events table
 - 2.4 Metadata – Parameter table
 - 2.5 Data table
- 3 Frequently asked questions
 - 3.1 Laboratory experiments

Data types and templates [edit | edit source]

Field observations/biodiversity [edit | edit source]

Data are either directly collected in the field, or organisms are collected and preserved (e.g. frozen) for later analysis in the laboratory. E.g. determining the abundance of species in space and time.

Examples:

- <https://doi.org/10.1594/PANGAEA.911931>
- <https://doi.org/10.1594/PANGAEA.917698>

Template

Field experiments (including e.g. mesocosm studies) [edit | edit source]

Field experiments are *in situ* studies which compare effects on organisms subjected to different treatments in their natural habitat or in conditions resembling their natural habitats. Conditions are partially controlled, the treatments are set up by researchers. E.g. determining growth in different microhabitats.

Example:

- <https://doi.org/10.1594/PANGAEA.910350>

Template

Laboratory experiments (including e.g. ship-based experiments) [edit | edit source]

Laboratory experiments are (comparative) studies on organisms under controlled conditions set up in a land-based or ship-based laboratory. E.g. behaviour of fish larvae in response to different treatments of CO₂ partial pressure.



- Data might be submitted as TAB-delimited TEXT-files (ASCII) or Excel-format
- For all samples, observations and measurements made somewhere on earth, **georeference is mandatory** (latitude/longitude in decimal degree).
- Additionally, third dimension: water depth, altitude, depth in ice, ...
- Date/Time must be provided in ISO-format (e.g. 2020-04-07T13:34:11)
- For each observation provide **Event/Station ID** in the first column
- **Parameters** are always accompanied by a **unit**
- Abbreviations must be explained
- A separate metadata table can be added, with short name / long name / PI / method / comment for each parameter



- Titles for all your submitted datasets (tables) – different from the paper, should reflect what was measured, where and when
- **Abstract** – data specific
- (Preliminary) paper citation – if data related to a publication
- Check more details at **PANGAEA wiki** (https://wiki.pangaea.de/wiki/Main_Page)



The screenshot shows the PANGAEA website interface. At the top left is the PANGAEA logo and the text "Data Publisher for Earth & Environmental Science". On the top right, the user name "Janine Felden" is displayed along with profile and share icons. Below the header is a navigation menu with "SEARCH", "SUBMIT", "ABOUT", and "CONTACT".

The main content area is divided into several sections:

- Submit Data:** A dark teal box with a white arrow icon pointing to a globe.
- Welcome to PANGAEA® Data Publisher:** A white box with a teal border containing the text: "Our services are generally open for archiving, publishing, and re-usage of data. The World Data Center PANGAEA is member of the ICSU World Data System."
- Search:** A teal search bar with the placeholder text "Search for measurement type, author name, project, taxa,..." and a magnifying glass icon.
- Topics:** A vertical teal sidebar on the left with the word "TOPICS" and a list of 15 categories, each with a representative image and a count in parentheses:
 - CHEMISTRY (159735)
 - OCEANS (99260)
 - LITHOSPHERE (55167)
 - BIOLOGICAL CLASSIFICATION (32855)
 - ATMOSPHERE (28678)
 - PALEONTOLOGY (25384)
 - ECOLOGY (16724)
 - BIOSPHERE (7775)
 - LAND SURFACE (7394)
 - GEOPHYSICS (3636)
 - CRYOSPHERE (1481)
 - LAKES & RIVERS (687)
 - HUMAN DIMENSIONS (475)
 - FISHERIES (275)
 - AGRICULTURE (135)
- Latest News:** A white box with a teal border containing two news items:
 - 2020-11-18 MOSAIC EXPEDITION DOCUMENTARY:** "One year in the eternal ice of the Arctic - the experiences and challenges during the MOSAIC expedition were captured in a documentary."
 - 2020-10-20 STATE OF NATURE IN EUROPE 2020:** "Europe's nature is experiencing a serious and continuing decline. The challenge to protect it is urgent, and significant additional efforts are needed to reverse the current trend."
- Featured Data:** A white box with a teal border containing three data entries:
 - Klages, JP; Salzmann, U; Bickert, T et al. (2019):** "Sedimentological, palynological, geochemical, palaeomagnetic, and geochronological investigations of cores 9R and 10R from MARUM-MeBo70 Site PS104_20-2" with DOI: <https://doi.org/10.1594/PANGAEA.906092>
 - Kölling, M (2019):** "Pyrex 10.10 Model of pyrite oxidation on shelves over the Quaternary" with DOI: <https://doi.org/10.1594/PANGAEA.904761>
 - Bärfuss, K; Hankers, R; Bitter, M et al. (2019):** "In-situ airborne measurements of atmospheric and sea surface parameters related to offshore wind parks in the German Bight" with DOI: <https://doi.org/10.1594/PANGAEA.902845>
- Waelbroeck, C; Lougheed, BC; Vázquez Riveiros, N et al. (2019):** "Consistently dated Atlantic sediment cores"



PANGAEA
Data Publisher for Earth & Environmental Science

Janine Felden

SEARCH SUBMIT ABOUT CONTACT

Submit Data

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 ICSU World Data System.

ALL TOPICS

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

TOPICS

- CHEMISTRY (159735)
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MAP

Latest News

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One year in the eternal ice of the Arctic - the experiences and challenges during the MOSAIC expedition were captured in a documentary.

2020-10-20
STATE OF NATURE IN EUROPE 2020
Europe's nature is experiencing a serious and continuing decline. The challenge to protect it is urgent, and significant additional efforts are needed to reverse the current trend.

► Show all 40 news items...

Featured Data


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Data Publisher for Earth & Environmental Science

SEARCH SUBMIT ABOUT CONTACT

1 Basics 2 Licenses 3 References 4 Further-Details 5 Upload

Basic Informations

Title*

Title max length: 200 chars

The title should ideally reflect what has been measured, observed, or calculated, when, where, and how.

Authors*

✚ Last Name First Name Email Institution Website ✕

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

Add an author

Keywords

diatom; ice core; Antarctica; south westerly wind;

Press 'Enter' to create badge.

Abstract/Describe your Data*

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

Next

JIRA - Tickets



Navigation: Dashboards, Projects, Issues, Create

PANGAEA Data Archiving & Publication / PDI-30284

Data submission 2021-11-25T00:32:13Z (Sebastian Höpker)

Buttons: Edit, Add comment, Assign, More, Start Preparation, Request file upload, Wo

Details

Type: Data Submission
Priority: Major
Labels: None
Title: Strontium isotope ratios (87Sr/86Sr) and salinity systematics in modern water
License: CC-BY: Creative Commons Attribution 4.0 International

Description

DO NOT EDIT METADATA IN THIS TICKET DESCRIPTION. Any changes you make here will be lost. Please use the "Edit Metadata" button above.

This is a summary of the metadata you provided:

Title: Strontium isotope ratios (87Sr/86Sr) and salinity systematics in modern water samples and catfish

Authors

- * Höpker, Sebastian N., Email: seb.hoepker@gmail.com, Web: [none]
- * Wu, Henry C., Email: henry.wu@leibniz-zmt.de, Web: [none]
- * Lucassen, Friedrich, Email: lucassen@uni-bremen.de, Web: [none]
- * Brochier, Timothée, Email: timothee.brochier@gmail.com, Web: [none]
- * Sadio, Oumar, Email: oumar.sadio@ird.fr, Web: [none]
- * Nuworkpor, Ishmael Y., Email: inuworkpor@yahoo.com, Web: [none]
- * Kasemann, Simone A., Email: skasemann@marum.de, Web: [none]
- * Merschel, Peter, Email: peter.merschel@posteo.de, Web: [none]
- * Westphal, Hildegard, Email: hildegard.westphal@leibniz-zmt.de, Web: [none]

Keywords

Strontium; (0), Salinity; (0), Hydrochemistry; (0), Carbonate; (0), Catfish; (0), Otolith; (0), West Africa;

Abstract: Modern sub-surface water samples and the otoliths of catfish (*Carliarius parkii* and *Chrysichthys nigrodigitatus*) and Volta River (Ghana) in 2017 were analysed to investigate relationships between the Sr geochemist estuarine salinity gradients were used to establish mixing models describing their relationships. Bulk c mixing models. Catch data (total length, forc length, weight) of catfish were recorded and used to est

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Projects

- * ZMT: Leibniz Centre for Tropical Marine Research, Web: <https://www.leibniz-zmt.de>, Award: [none]
- * Volkswagenstiftung, funding line "Key issues for research and society", Web: [none], Award: [none]

File descriptions: File 1: 87Sr/86Sr, Sr and Ca concentration, and salinity of water samples from the estuaries of the Gambia River, Sine-Saloum, and Volta River, 2017

File 2: 87Sr/86Sr and Sr/Ca measured in the otoliths of catfish (*Carliarius parkii* and *Chrysichthys nigrodigitatus*) caught in the estuaries of the Gambia River, Sine-Saloum, and Volta River, 2017. Information on total fish length, forc length, weight, and age of the catfish is also presented.

Comment: Dear Pangaea team,
Please find here our data for an upcoming publication. The corresponding manuscript has been accepted with minor revisions and I admit I meant to submit the data a lot earlier... but hopefully it is close to acceptable format. The data are spread across two files/tables and I've added a table with parameters I've used, as well as suggested events.
Looking forward to hearing from you.

Many thanks and best regards,
Seb Hoepker

Moratorium Required: [none]
Moratorium Date: [none]
Moratorium Until Published: [none]

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Attachments

Drop files to attach, or browse.

Hoepker_Events.csv	0.3 kB	2021-11-25 02:26
Hoepker_File_1.csv	2 kB	2021-11-25 02:26
Hoepker_File_2.csv	1 kB	2021-11-25 02:26
Hoepker_Parameters.csv	3 kB	2021-11-25 02:26
metadata.json	5 kB	2021-11-25 02:26

Activity

All Comments Work Log History Activity

Janine Felden added a comment - 2021-11-29 10:06

Dear Sebastian Höpker,

your data submission has been initially checked and was approved for the next steps in our editorial workflow. Our issue tracking system will inform you as soon as your data submission is further processed by one of our data editors. In general, all data and metadata are quality checked, harmonized, and processed for machine readability, which allows efficient and reliable re-usage of your data according to the FAIR

JIRA - Tickets



[Dashboards](#) [Projects](#) [Issues](#) [Create](#)

PANGAEA Data Archiving & Publication / PDI-30284
Data submission 2021-11-25T00:32:13Z (Sebastian Höpker)

[Edit](#) [Add comment](#) [Assign](#) [More](#) [Start Preparation](#) [Request file upload](#) [Work Log](#)

Details
 Type: [Data Submission](#)
 Priority: [Major](#)
 Labels: [None](#)
 Title: Strontium isotope ratios (87Sr/86Sr) and salinity systematics in modern water samples and catfish
 License: [CC-BY: Creative Commons Attribution 4.0 International](#)

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 * Brochier, Timothée, [Email: timothee.brochier@gmail.com](#), [Web: \[none\]](#)
 * Sadio, Oumar, [Email: oumar.sadio@ird.fr](#), [Web: \[none\]](#)
 * Nuworkpor, Ishmael Y., [Email: inuworkpor@yahoo.com](#), [Web: \[none\]](#)
 * Kasemann, Simone A., [Email: skasemann@marum.de](#), [Web: \[none\]](#)
 * Merschel, Peter, [Email: peter.merschel@posteo.de](#), [Web: \[none\]](#)
 * Westphal, Hildegard, [Email: hildegard.westphal@leibniz-zmt.de](#), [Web: \[none\]](#)

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Moratorium Date: [none]
Moratorium Until Published: [none]

DO NOT EDIT METADATA IN THIS TICKET DESCRIPTION. Any changes you make here will be lost. Please use the "Edit Metadata" button above.

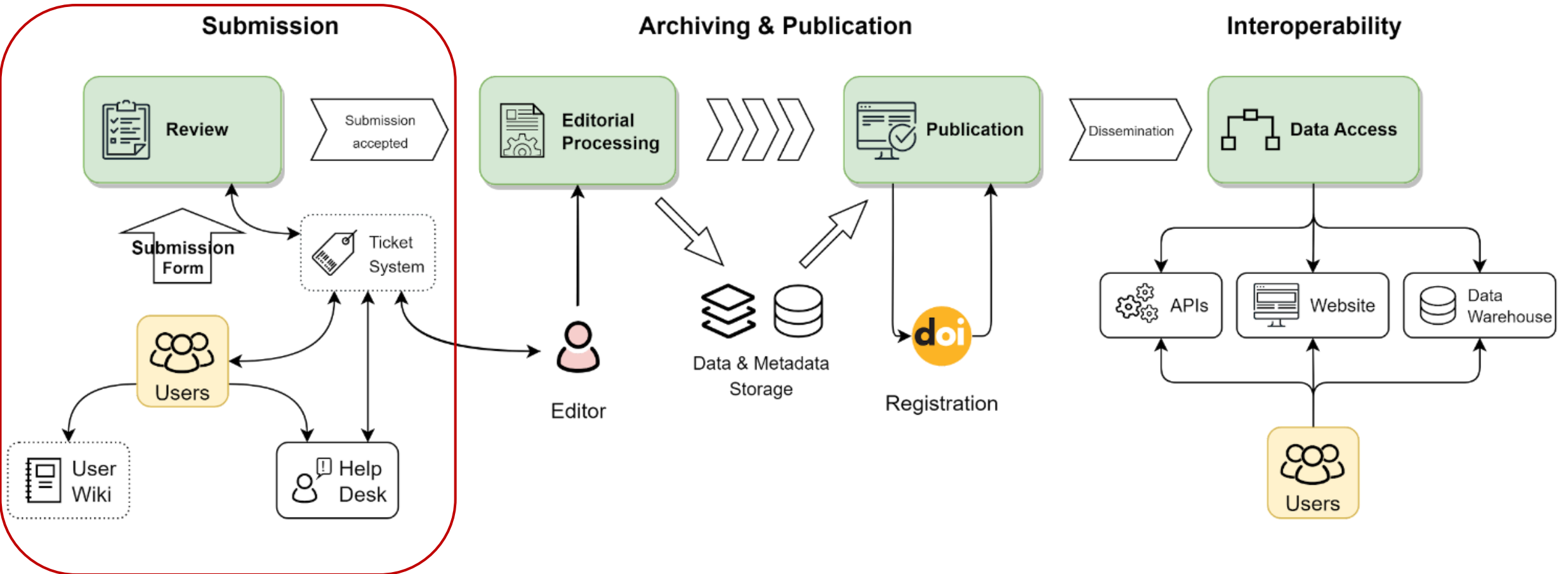
Attachments
[Hoepker_Events.csv](#)
[Hoepker_File_1.csv](#)
[Hoepker_File_2.csv](#)
[Hoepker_Parameters.csv](#)
[metadata.json](#)

Activity
[All](#) [Comments](#) [Work Log](#) [History](#) [Activity](#)
 Janine Felden added a comment - 2021-11-25
 Dear Sebastian Höpker,
 your data submission has been initially checked one of our data editors. In general, all data and

FISP_accumulation

Date/Time first measurement	Latitude first measurement	Longitude first measurement	Date/Time second measurement	Latitude second measurement	Longitude second measurement	Comment	Delta t (days)	Height change (m)	Heig
2015-12-18T17:09	-82.377400	-45.666747	2016-12-23T17:31	-82.375473	-45.662697	pRES001	371.01	0.33	
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Simplified data publication workflow





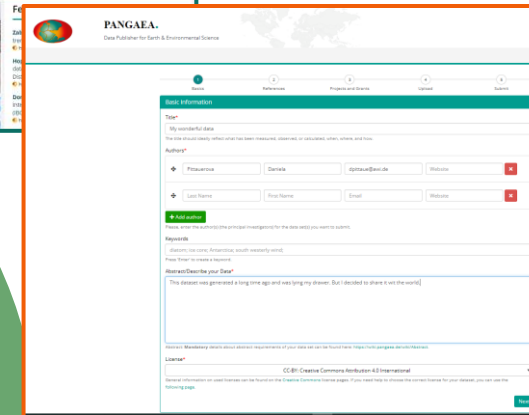
1st Step (fulfilling “formal” criteria):

- submission in scope?
- comprehensive abstract and title?
- authorship clear?
- sampling information complete?
- spatial and temporal coverage given?
- parameter names and units present and evident?
- project and award info provided?

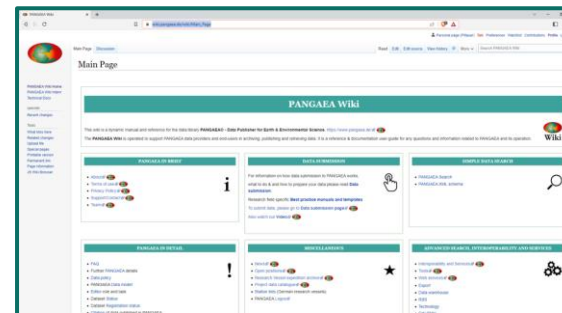
PANGAEA Components



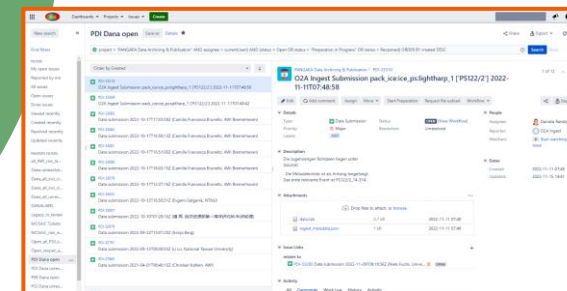
PANGAEA website
<https://www.pangaea.de/>



Submission form

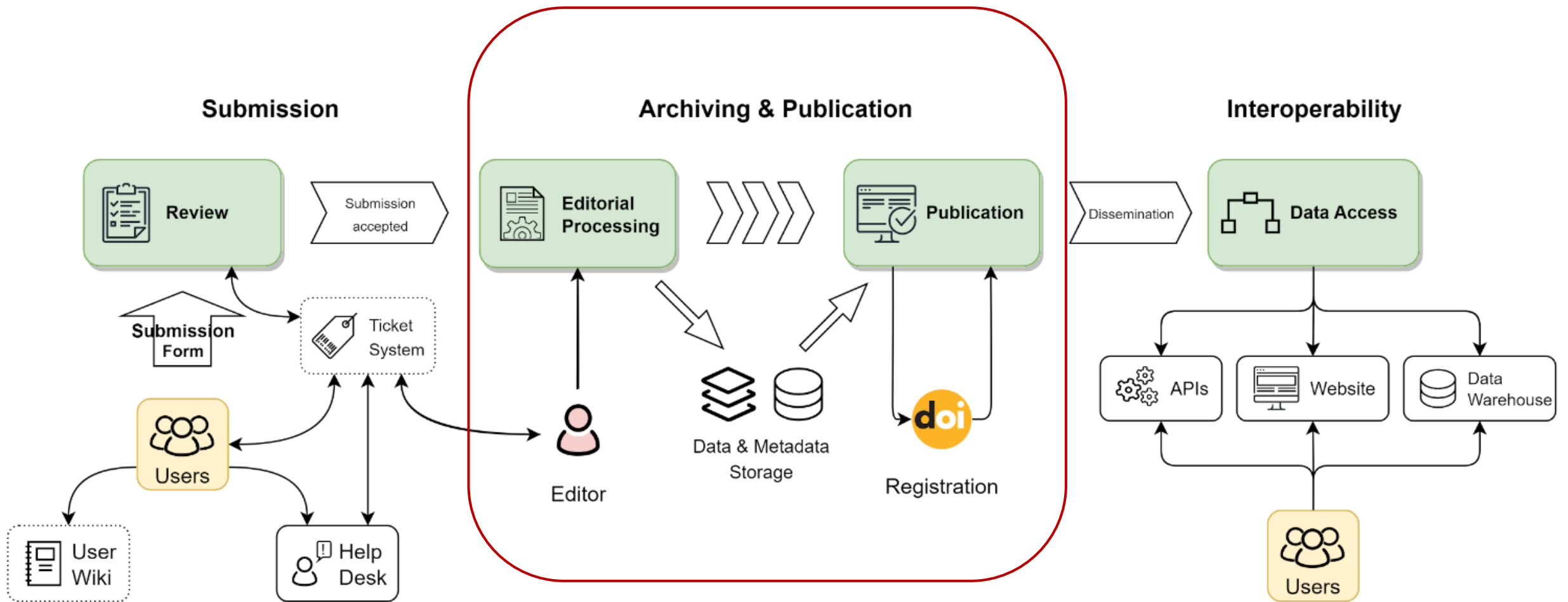


wiki: guides, backgrounds & SOPs
<https://wiki.pangaea.de/>



Ticket system / issue tracker:
communication, documentation, organization
<https://issues.pangaea.de/>

Two-Steps Review Process



Two-Steps Review Process



2nd Step (Editorial data processing):

- Metadata level:
 - Connect data and metadata
 - Standardize (e.g. align with terminologies)
 - Harmonize (e.g. units and formats)
- Data level:
 - minor adjustments possible



The screenshot shows the PANGAEA editorial interface. On the left is a sidebar menu with categories: Projects, Campaigns, Events, Datasets, Data Series, Institutions, Bases, Staffs, References, Methods, Parameters, Terms, Keywords, Locations, and Terminologies. The main area displays a table of datasets with columns: ID, Title, Author(s), and Institution. The table contains several rows of dataset information, including titles like 'Tissue carbon, nitrogen and phosphorus composition of Euphausia superba and Salpa thompsoni from the northern Antarctic Peninsula' and 'Bathymetric data for the Israeli coastal micro-estuaries'. At the bottom, there is a status bar showing 'Batch edit (0)', 'Clear filters', and 'Total 440450 rows'.

Manual Data Curation by PANGAEA Editors



Data

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Editorial System

PANGAEA - Editorial System

Project: Data Set List

Dataset

Advanced search option

Search: Find by title or ID

ID	Author(s)	Title
941374	Reilly, LO; Wheeler, A; Titschack, J; Aaron, L	CT DICOM for Core CE180
941373	Palmer, HM; Padilla Vriesman, V; Banker, RMW; Bea...	A database of Holocene ne
941368	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water analysis of site
941367	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water rates for site 1A
941366	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water δ18O (VSMOW)
941365	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water δ2H (VSMOW) f
941364	Valente, A; Sathyendranath, S; Brotas, V; Groom, S; ...	Remote sensing reflectanc
941362	Schmidt, K; Paul, SAL; Achterberg, EP	Dissolved and soluble pore
941356	Engelmann, R; Griesche, H; Radenz, M; Hofer, J; Alt...	Brightness temperatures of
941355	Gledhill, M; Hollister, A; Siedel, M; Zhu, K; Achterber...	Hydrochemistry of water se
941353	Balstrocchi, M; Roberto, R; Bacchi, B	River-flow discharge at Par
941351	Paul, SAL; Koschinsky, A	Solid-phase manganese cc
941349	Kaleschke, L; Müller, G	Sea ice drift from automom
941348	Kaleschke, L; Müller, G	Sea ice drift from automom

Showing 1 to 72 of 777,789 entries

Metadata

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Manuel Data Curation by PANGAEA Editors



Data

Tools

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Editorial System

PANGAEA - Editorial System

Data Set List

Dataset

Advanced search option

Search: Find by title or ID

ID	Author(s)	Title
941374	Reilly, LO; Wheeler, A; Titschack, J; Aaron, L	CT DICOM for Core CE180
941373	Palmer, HM; Padilla Vriesman, V; Banker, RMW; Bea...	A database of Holocene ne
941368	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water analysis of site
941367	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water rates for site 1A
941366	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water δ18O (VSMOW)
941365	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water δ2H (VSMOW) f
941364	Valente, A; Sathyendranath, S; Brotas, V; Groom, S; ...	Remote sensing reflectanc
941362	Schmidt, K; Paul, SAL; Achterberg, EP	Dissolved and soluble pore
941356	Engelmann, R; Griesche, H; Radenz, M; Hofer, J; Alt...	Brightness temperatures of
941355	Gledhill, M; Hollister, A; Siedel, M; Zhu, K; Achterber...	Hydrochemistry of water s
941353	Balstrocchi, M; Roberto, R; Bacchi, B	River-flow discharge at Par
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941349	Kaleschke, L; Müller, G	Sea ice drift from automom
941348	Kaleschke, L; Müller, G	Sea ice drift from automom

Metadata



Manuel Data Curation by PANGAEA Editors

Data

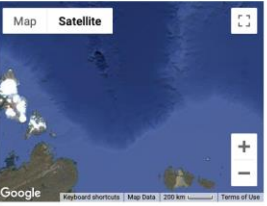
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2019-10-07T10:45	-82.39197	-42.27558	2019-10-07T11:00	-82.39310	-42.27299	pf02000	2019-10-07T11:00	-82.39310	-42.27299	pf02000
2019-10-07T11:15	-82.39228	-42.16619	2019-10-07T11:30	-82.39341	-42.16360	pf02000	2019-10-07T11:30	-82.39341	-42.16360	pf02000
2019-10-07T11:45	-82.39259	-42.05680	2019-10-07T12:00	-82.39372	-42.05421	pf02000	2019-10-07T12:00	-82.39372	-42.05421	pf02000
2019-10-07T12:15	-82.39290	-41.94741	2019-10-07T12:30	-82.39403	-41.94482	pf02000	2019-10-07T12:30	-82.39403	-41.94482	pf02000
2019-10-07T12:45	-82.39321	-41.83802	2019-10-07T13:00	-82.39434	-41.83543	pf02000	2019-10-07T13:00	-82.39434	-41.83543	pf02000
2019-10-07T13:15	-82.39352	-41.72863	2019-10-07T13:30	-82.39465	-41.72604	pf02000	2019-10-07T13:30	-82.39465	-41.72604	pf02000
2019-10-07T13:45	-82.39383	-41.61924	2019-10-07T14:00	-82.39496	-41.61665	pf02000	2019-10-07T14:00	-82.39496	-41.61665	pf02000
2019-10-07T14:15	-82.39414	-41.50985	2019-10-07T14:30	-82.39527	-41.50726	pf02000	2019-10-07T14:30	-82.39527	-41.50726	pf02000
2019-10-07T14:45	-82.39445	-41.40046	2019-10-07T15:00	-82.39558	-41.39787	pf02000	2019-10-07T15:00	-82.39558	-41.39787	pf02000
2019-10-07T15:15	-82.39476	-41.29107	2019-10-07T15:30	-82.39589	-41.29148	pf02000	2019-10-07T15:30	-82.39589	-41.29148	pf02000
2019-10-07T15:45	-82.39507	-41.18168	2019-10-07T16:00	-82.39620	-41.17909	pf02000	2019-10-07T16:00	-82.39620	-41.17909	pf02000
2019-10-07T16:15	-82.39538	-41.07229	2019-10-07T16:30	-82.39651	-41.07170	pf02000	2019-10-07T16:30	-82.39651	-41.07170	pf02000
2019-10-07T16:45	-82.39569	-40.96290	2019-10-07T17:00	-82.39682	-40.96231	pf02000	2019-10-07T17:00	-82.39682	-40.96231	pf02000

Tools



Data Set

Citation: Nicolaus, Marcel; Hoppmann, Mario; Lei, Ruibo; Belter, Hans Jakob; Fang, Ying-Chih; Rohde, Jan (2020): Snow height on sea ice, meteorological conditions and drift of sea ice from autonomous measurements from buoy 2019579, deployed during MOSAIC 2019/20. *Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Bremerhaven, PANGAEA*, <https://doi.org/10.1594/PANGAEA.923187>,
 in: Nicolaus, M et al. (2021): Snow height on sea ice, meteorological conditions and drift of sea ice from autonomous Snow Buoys during MOSAIC 2019/20. *PANGAEA*, <https://doi.pangaea.de/10.1594/PANGAEA.933742> (dataset in review)



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

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Abstract: Snow height was measured by the Snow Buoy 2019579, an autonomous platform, installed on drifting sea ice in the Arctic Ocean during MOSAIC (Leg 1) 2019/20. The resulting time series describes the evolution of snow height as a function of place and time between 07 Oct 2019 and 28 Nov 2019 in sample intervals of 1 hour. The Snow Buoy consists of four independent sonar measurements representing the area (approx. 10 m**2) around the buoy. The buoy was installed on pack ice. In addition to snow height, geographic position (GPS), barometric pressure, air temperature, and ice surface temperature were measured. Negative values of snow height occur if surface ablation continues into the sea ice. Thus, these measurements describe the position of the sea ice surface relative to the original snow-ice interface. Differences between single sensors indicate small-scale variability of the snow pack around the buoy. The data set has been processed, including the removal of obvious inconsistencies (missing values). Records without any snow height may still be used for sea ice drift and meteorological analyses.

Keywords: autonomous platform Q; buoy Q; drift Q; snow depth Q

Further details: Buoy Deployment Report 2019579 (pdf) Q

Projects: [Current sea ice maps for Arctic and Antarctic](#) (meereisportal.de) Q
[Multidisciplinary drifting Observatory for the Study of Arctic Climate \(MOSAIC\)](#) Q
[Multidisciplinary ice-based Distributed Observatory \(MIDO\)](#) Q
[Sea Ice Physics @ AWI \(AWI_Sealce\)](#) Q

Funding: [Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Bremerhaven \(AWI\)](#) Q, grant/award no. **AFMOSAIC-1_00** Q; [Multidisciplinary drifting Observatory for the Study of Arctic Climate](#) Q
[Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research, Bremerhaven](#) Q, grant/award no. **AWI_PS122_00** Q; [Multidisciplinary drifting](#) Q

Optional name: AWI
Crossref Funder ID: <https://doi.org/10.13039/501100003207>

Coverage: *Median Latitude: 85.366409 ° Median Longitude: 126.990882 ° South-bound Latitude: 84.548200 ° West-bound Longitude: 117.911400 ° North-bound Latitude: 86.006000 ° East-bound Longitude: 137.639000*

Date/Time Start: 2019-10-07T02:00:00 ° Date/Time End: 2019-11-28T08:02:00

Editorial System

PANGAEA - Editorial System Janine Felden

Project **Data Set List** + Create Import

Dataset

Advanced search option

Search: Find by title or ID

ID	Author(s)	Title
941374	Reilly, LO; Wheeler, A; Titschack, J; Aaron, L	CT DICOM for Core CE180
941373	Palmer, HM; Padilla Vriesman, V; Banker, RMW; Bea...	A database of Holocene ne
941368	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water analysis of site
941367	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water rates for site 1A
941366	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water δ18O (VSMOW)
941365	Treble, PC; Baker, A; Hellstrom, JC; Abram, NJ; Cra...	Drip water δ2H (VSMOW) f
941364	Valente, A; Sathyendranath, S; Brotas, V; Groom, S; ...	Remote sensing reflectanc
941362	Schmidt, K; Paul, SAL; Achterberg, EP	Dissolved and soluble pore
941356	Engelmann, R; Griesche, H; Radenz, M; Hofer, J; Alt...	Brightness temperatures of
941355	Gledhill, M; Hollister, A; Siedel, M; Zhu, K; Achterber...	Hydrochemistry of water s
941353	Balistracchi, M; Roberto, R; Bacchi, B	River-flow discharge at Par
941351	Paul, SAL; Koschinsky, A	Solid-phase manganese cc
941349	Kaleschke, L; Müller, G	Sea ice drift from autonom
941348	Kaleschke, L; Müller, G	Sea ice drift from autonom

Metadata

Project **Award** **Funder** **Campaign** **Event** **Data Set** **Data Series** **Institution** **Staff** **Basis** **Reference** **Journal** **Method** **Parameter** **Term** **Location** **Keyword** **User** **Group**

Two-Steps Review Process

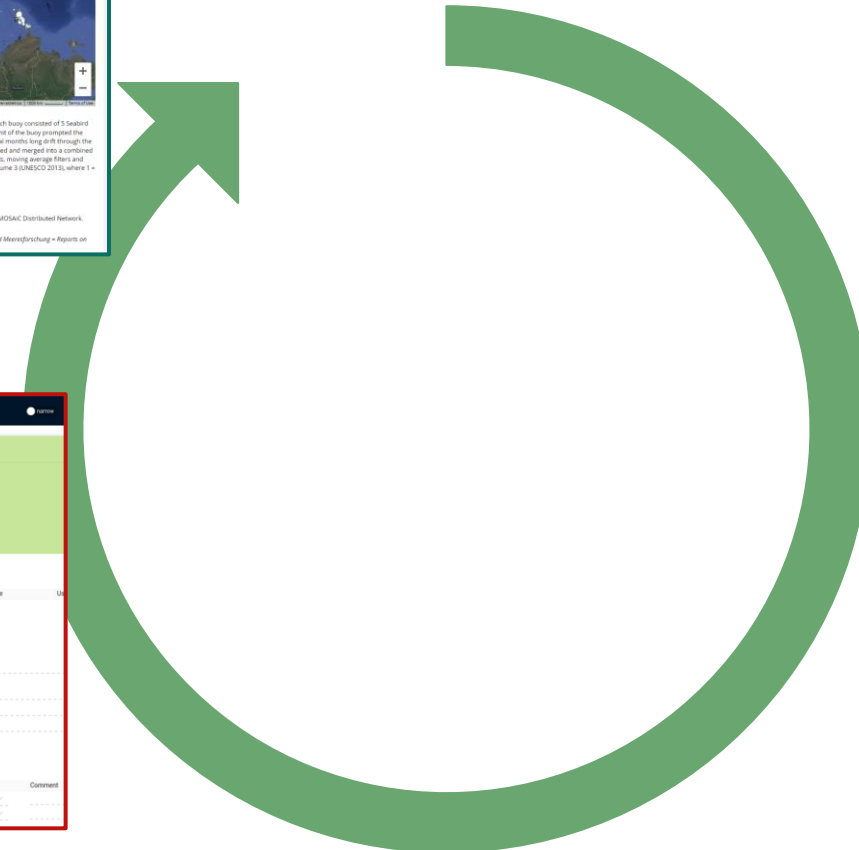


The screenshot shows a PANGAEA data record for buoy data. The citation is: Hoppmann, Mario; Kuznetsov, Ivan; Fang, Ying-Chih; Rabe, Benjamin (2022): Processed data of CTD buoys 2019O1 to 2019O8 as part of the MOSAIC Distributed Network. PANGAEA, <https://doi.org/10.1594/PANGAEA.940320>. The abstract describes a set of eight ocean-buoy systems deployed in the Northern Laptev Sea in early October 2019. The data includes oceanographic parameters like temperature, salinity, and depth. A satellite map shows the location of the buoys in the Arctic region.

Published data
<https://doi.pangaea.de/>

The screenshot shows an editorial system interface for data curation. It features a top navigation bar with 'EA - editorial' and 'Exit Overview'. Below this, there are sections for 'Data uploaded', 'In preparation', and 'Monitoring passed'. The main area contains a form for editing a record, with fields for 'Title', 'Author', and 'Affiliation'. A 'References' section is visible at the bottom, listing a reference: 'DNA Silencing of the Biomneralizat...'. The interface is designed for editors to manage and curate data records.

Editorial system:
Curation (editors only)



Publication Types



Data set



Stand-alone



Independent supplement to a paper publication

Collection



Publication series



Bundled publication

PANGAEA Components



Citation: Hoppmann, Mario, Kuznetsov, Ivan, Fang, Ying-Chih, Rabe, Benjamin (2022): Processed data of CTD buoys 2019O1 to 2019O8 as part of the MOSGAC Distributed Network. PANGAEA, <https://doi.org/10.1515/pangaea.940320>

Abstract: A set of eight ocean-buoy systems (2019O1 to 2019O8) were deployed by the Alademik-Rederei in the Northern Ligat Sea in early October 2019 as part of the MOSGAC Distributed Network. Each buoy consisted of 3 Standard 582 7584 MOSGAC CTDs mounted along an inductive mooring tether at depths of 10, 25, 50, 75 and 100m. The CTDs were recording oceanographic data every 4 to 2 minute intervals. The surface unit of the buoy prompted the instrument for an additional measurement every 10 minutes, which was then transmitted to a base station via radio link along with GPS position and time, as well as surface temperature. After a several months long drift through the Central Arctic Ocean, 4 out of 8 buoys were recovered in August 2020, and the intervally recorded data from the CTDs were secured. The 50-minute buoy data and 2-minute CTD data were co-processed and merged into a combined product. A buoy flag indicates whether a measurement was taken by the buoy (1) or was recorded by the CTD (not 0). The data were quality controlled by means of outlier detection using global limits, missing average filters and manual inspection. The dataset was carefully checked for microstabilities, especially in the salinity. A slightly modified quality flagging scheme was applied according to the Ocean Data Standards (issue 3.0/ISSCOS 2018), where 1 = Good, 2 = Good (Modified), 3 = Questionable, 4 = Bad, 9 = no data. Finally, the data were validated against independent measurements. Details are available in the data paper indicated below.

Keywords: Arctic Ocean, buoy, eddy, mesoscale, mesoscale eddy, oceanographic time series, oceanography, Transpolar Drift

Related to: Hoppmann, Mario, Kuznetsov, Ivan, Fang, Ying-Chih, Rabe, Benjamin (2022): Mesoscale observations of temperature and salinity in the Arctic: Transpolar Drift - a high-resolution dataset from the MOSGAC Distributed Network. *Earth System Science*, **14**, 4501-4521. <https://doi.org/10.1007/s12040-021-02022-0>
Krumann, Thomas, Seckler, Vladimir (2020): The Expedition AF12211 - Setting up the MOSGAC Distributed Network in October 2019 with Research Vessel AKADEMIK FEDOROV. *Beiträge zur Polar- und Meeresforschung - Reports on Polar and Marine Research*, **24**, 1-19 pp. <https://doi.org/10.2306/1846-3596-2020-24>

Published data
<https://doi.pangaea.de/>

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ALL TOPICS: Search for measurement type, author name, project, task

Latest News: 2022-11-21: REGISTRATION IS OPEN PANGAEA COMMUNITY WORKSHOP FAIR DATA PUBLICATIONS WITH PANGAEA. The Fair Four hands-on workshop focuses on preparing and submitting data to PANGAEA in accordance to requirements for such and sustainable data publishing (see online at Dec 01 and 03, both 10:00am - 12:00pm CET EST/ESTC). More details and pre-registration here (since Nov 2021).

PANGAEA website
<https://www.pangaea.de/>

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Type: My metadata data

File: You may upload files which have been measured, observed or calculated, which were used to generate the data.

Author:

- First Name: [input] Last Name: [input] Email: [input]
- Organization: [input]

Keywords:

- Keywords: [input]

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Submission form

PANGAEA WIKI

The PANGAEA Wiki is operated to support PANGAEA's activities and to ensure an archiving, publishing and re-use of data. It is a reference and documentation guide for the guidelines and information needed to PANGAEA and its operation.

Topics:

- FAIR Data
- Metadata
- Quality Control
- Submission
- Usage

wiki: guides, backgrounds & SOPs
<https://wiki.pangaea.de/>

EA - editorial

Workflow: Data uploaded (3) | In preparation (1) | Monitoring passed (1)

Actions: Import Data, Clear Data, Save Settings, Entire Data Registration

Publication status: published, unrestricted, Enhanced curation

Metadata fields: Affiliation, 2nd Affiliation, Comment, Time

References:

- Reference: RNA Silencing of the Biomnematocyst
- Relation type: Supplement to
- Comment: Documentation

Editorial system:
Curation (editors only)

PDI Data open

Project: OZA Ingest Submission pack via Icaja.pslighthouse1 [PS12/2] 2022-11-11T02:48:58

Issue details:

- Issue ID: 11-11T02-48:58
- Created: 2022-11-11T02:48:58
- Updated: 2022-11-11T02:48:58
- Assignee: [input]
- Status: Open

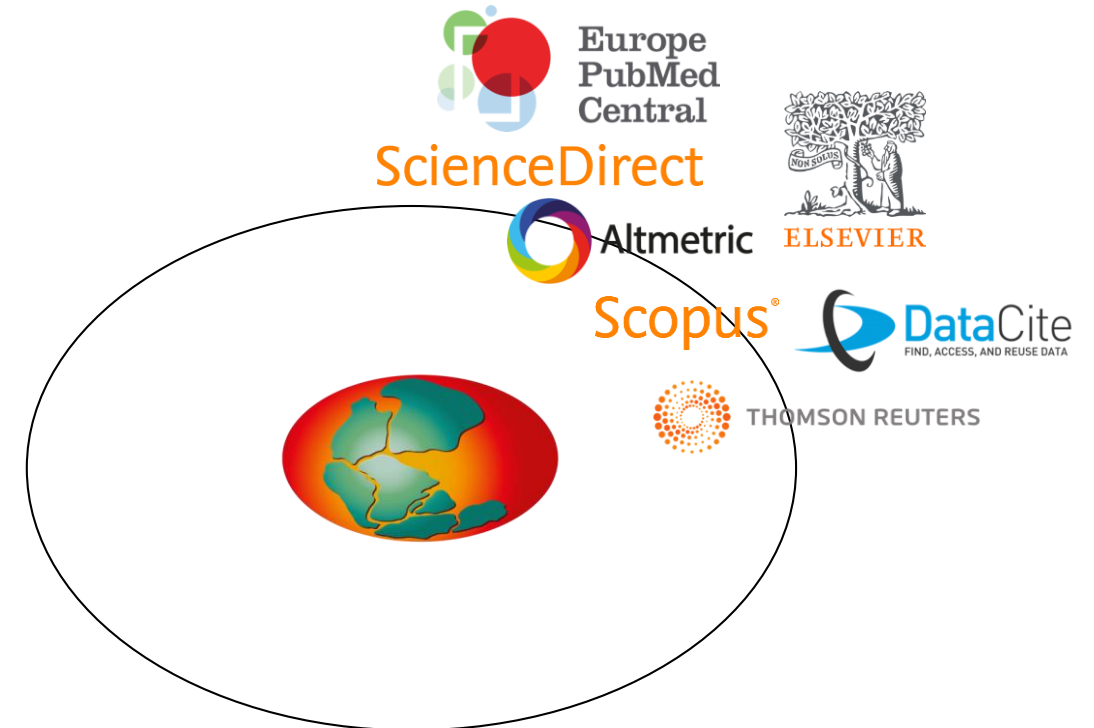
Ticket system / issue tracker:
communication, documentation, organization
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FAIR Published & So What???





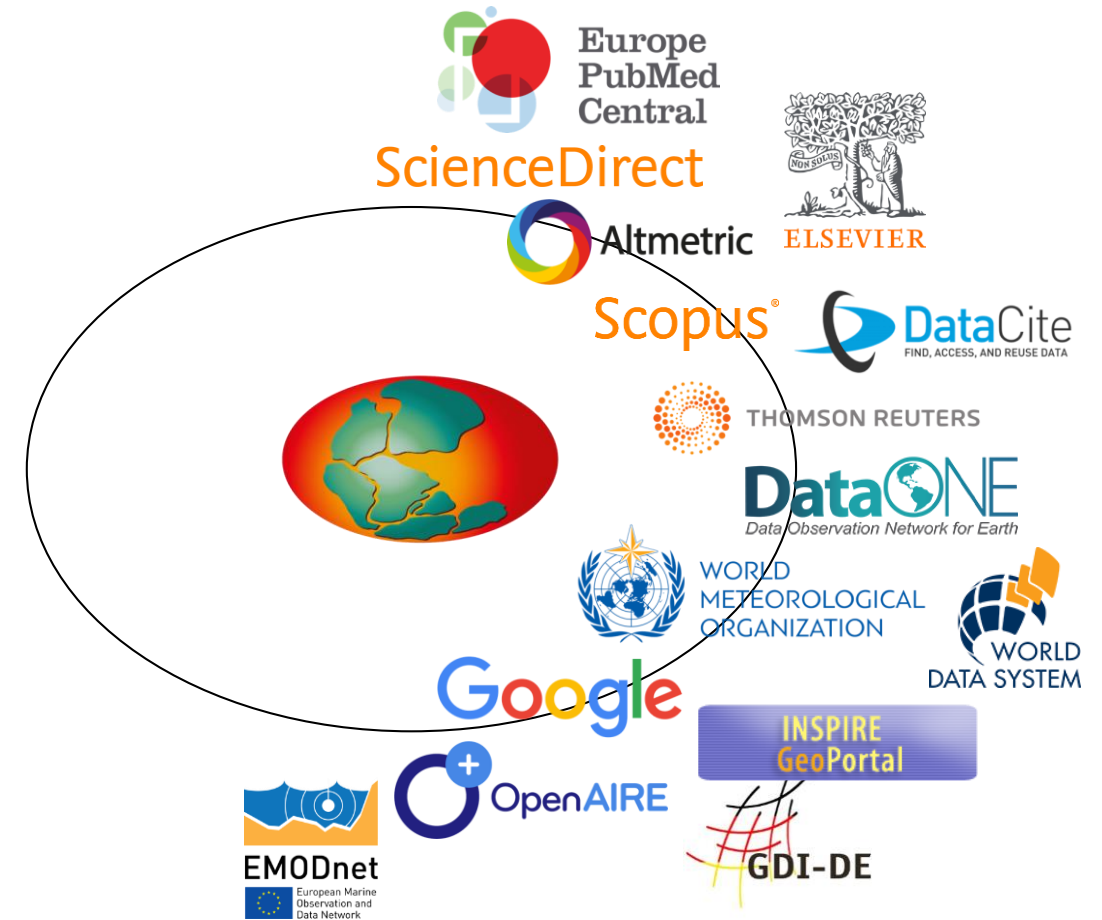
- Publishers and metric systems



Metadata & Data Dissemination



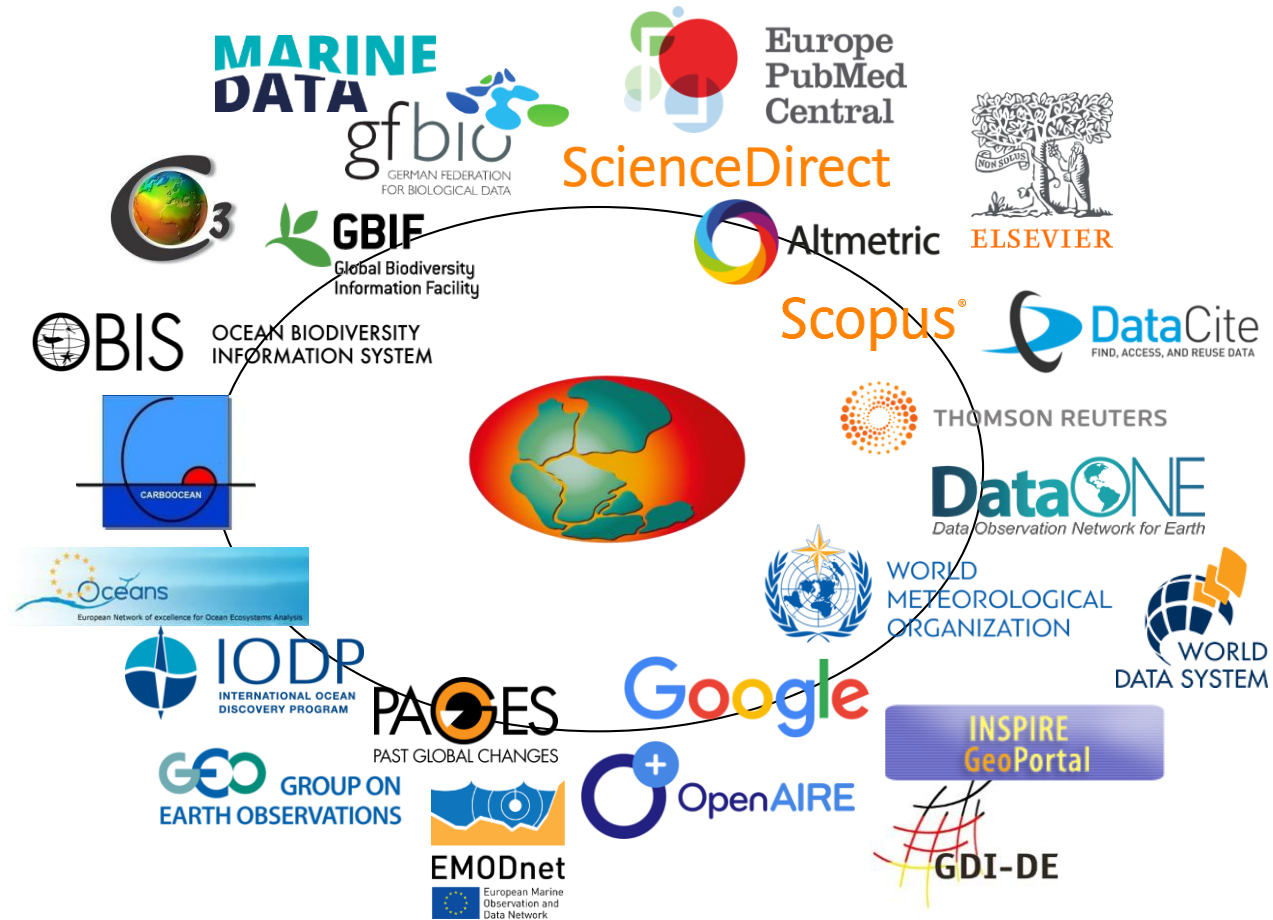
- Publishers and metric systems
- Search engines and aggregators



Metadata & Data Dissemination



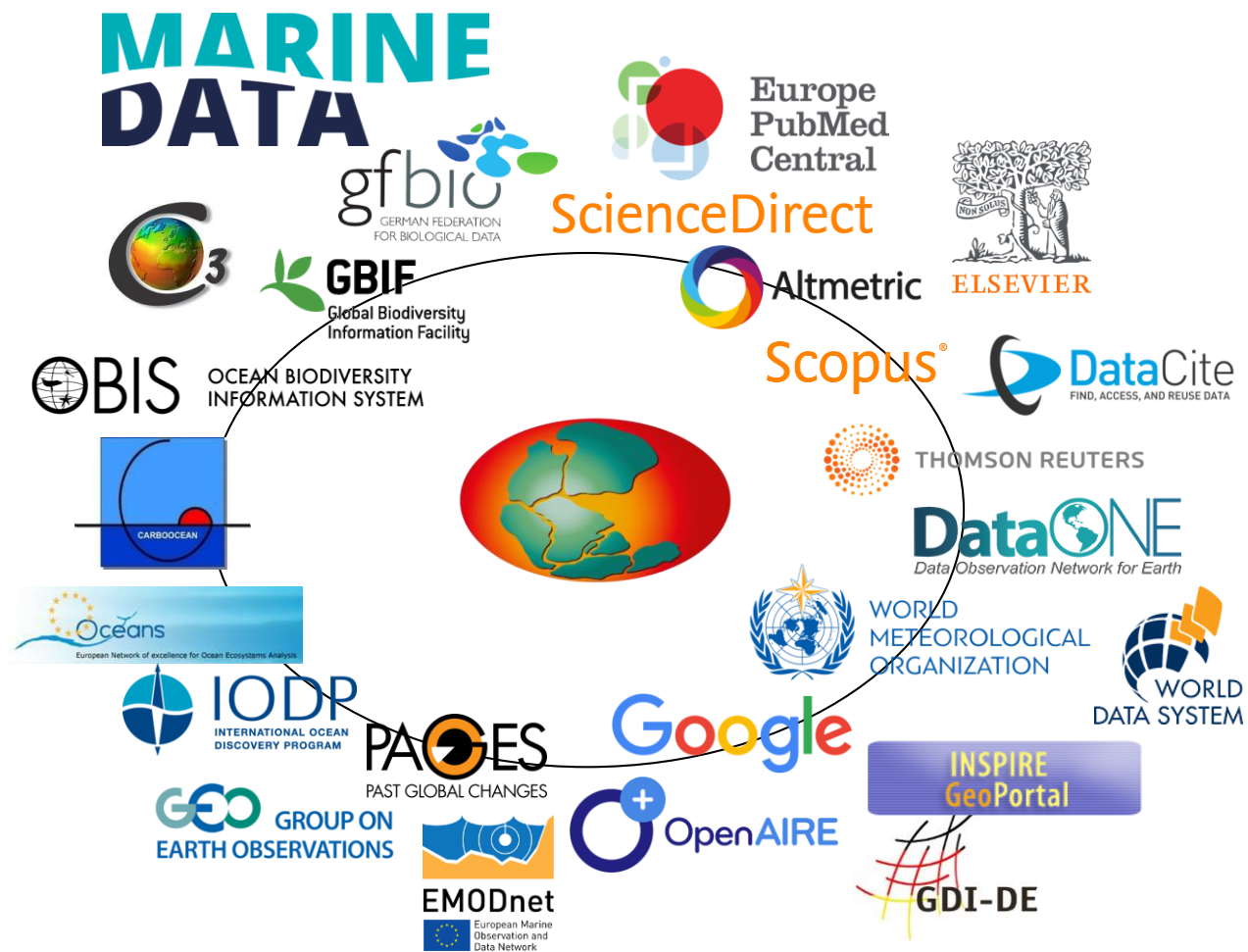
- Publishers and metric systems
- Search engines and aggregators
- Community & project portals



Metadata & Data Dissemination

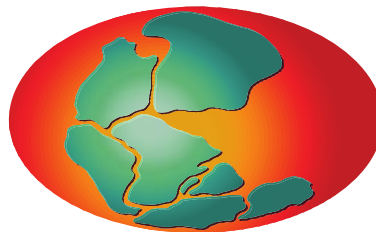


- Publishers and metric systems
- Search engines and aggregators
- Community & project portals



THANKS for Attention !!!!

Questions?





2023-06-28

SAVE THE DATE! - COMMUNITY WORKSHOP: FAIR DATA PUBLICATIONS WITH PANGAEA



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