

PANGAEA.

Data Publisher for Earth & Environmental Science

An introduction to PANGAEA

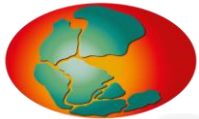


AWI

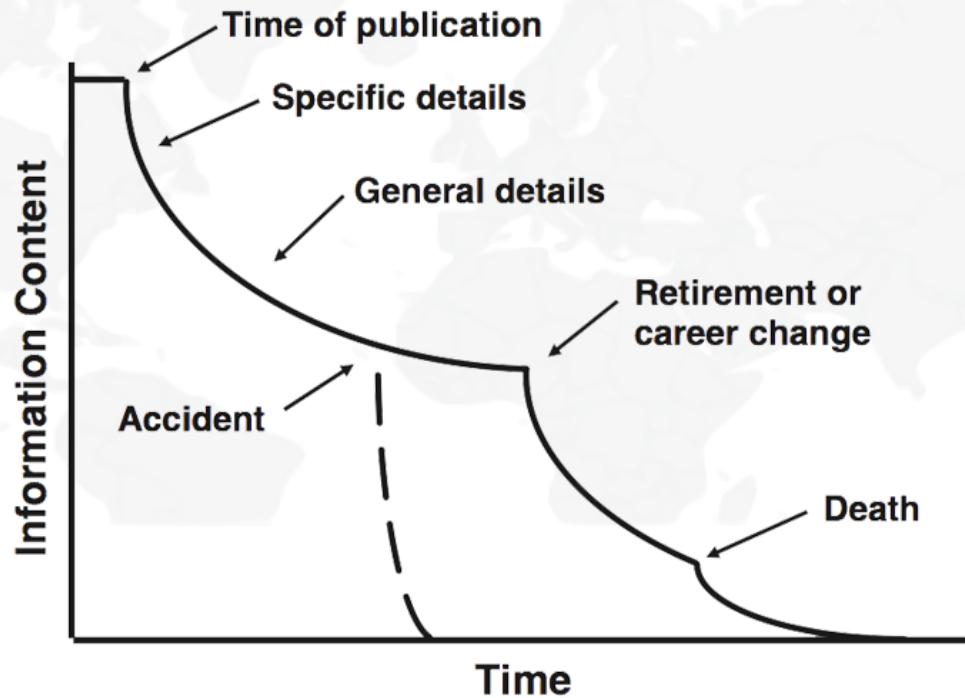
ALFRED-WEGENER-INSTITUT
HELMHOLTZ-ZENTRUM FÜR POLAR-
UND MEERESFORSCHUNG



University
of Bremen

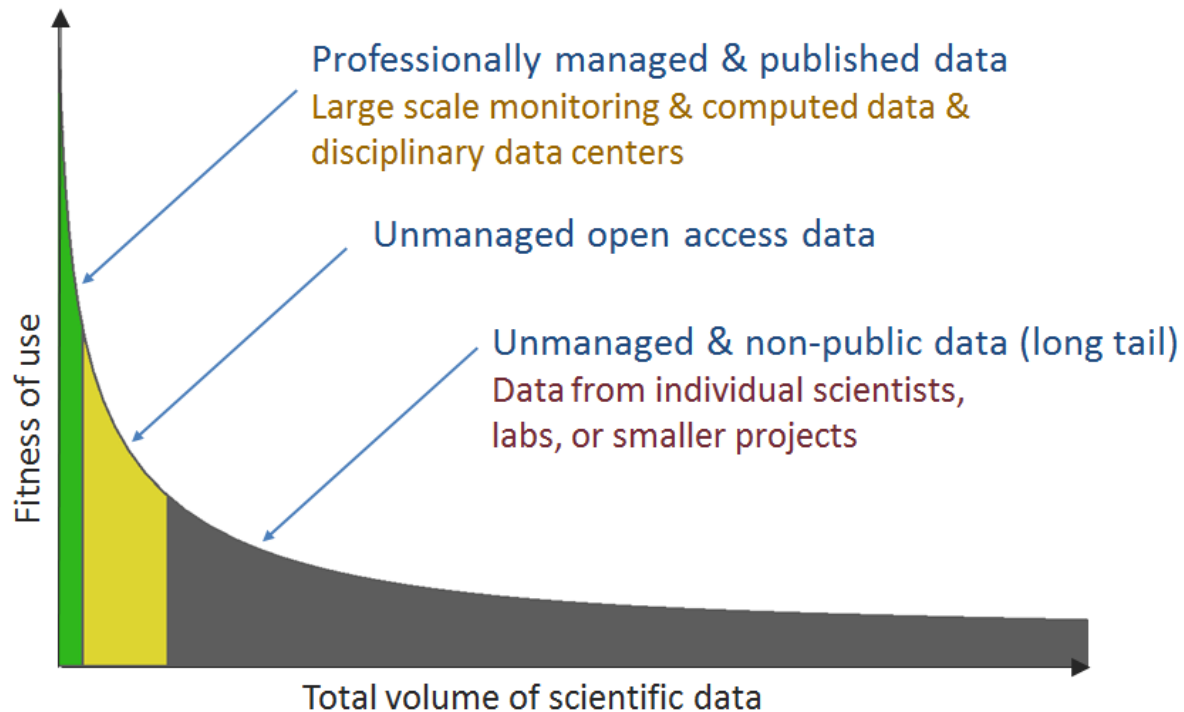


Why publishing data?





Why publishing data?



Graphic by Michael Diepenbroek



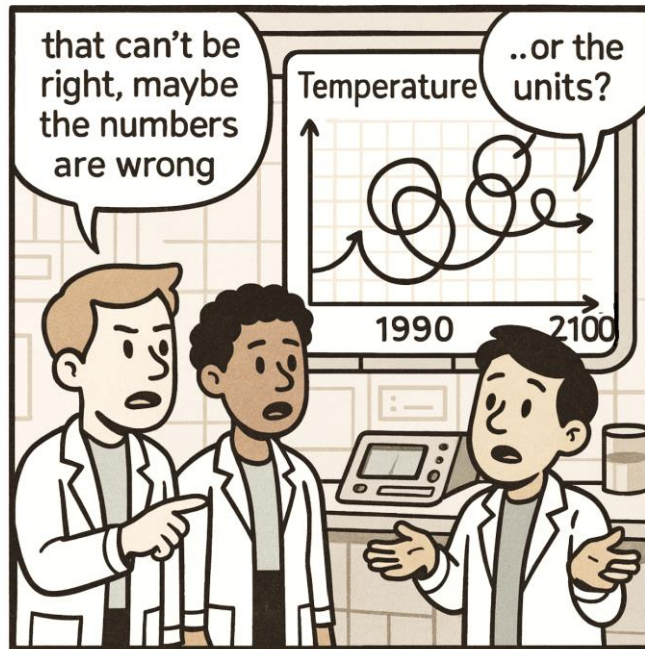
Why publishing data?

SORT	SPP	DATE	STAGE	TL	SEX	SVL	ZSVL	T
1	TAGR	7/15/13 M	33	U	16.36	0.160	1	
2	TAGR	7/15/13 M	31	U	15.25	-0.452	1	
3	TAGR	7/15/13 M	23	U	14.29	-0.623	9	
4	TAGR	7/15/13 M	25	U	13.76	-0.717	1	
5	TAGR	7/15/13 M	20	U	12.61	-0.922	7	
6	LICA	8/5/13 M	63	M	62.9	1.806		
7	LICA	8/8/13 M	61	F	60.98	1.591		
8	LICA	8/8/13 M	60	F	60.14	1.497		
9	LICA	8/5/13 M	59	M	59.39	1.413		
10	LICA	8/8/13 M	58	F	58.27	1.288		
11	LICA	7/1/13 M	58	M	57.71	1.226		

187	2025-07-16T15:00:00
187	2025-07-16T15:50:00
187	2025-07-17T14:10:00
187	2025-07-15T09:05:00
187	2027-07-15T09:30:00
187	2027-07-15T10:30:00
187	2027-07-15T15:00:00
187	2027-07-15T15:10:00
187	2027-07-15T15:00:00
187	2027-07-15T15:20:00
187	2025-07-16T10:35:00

Data Curation
matters!

SCIENTISTS IN THE FUTURE....



.... maybe it's not Temperature?

Graphic by Michael Diepenbroek

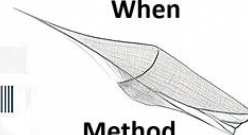
What? How? Where? When? Who? Stored? Data?



FAIR



When



Method



Where



Museum



Data



Scientist

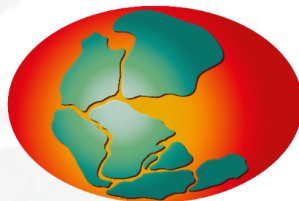


ORCID
stands for
Open Researcher and Contributor ID

WORMS
World Register of Marine Species

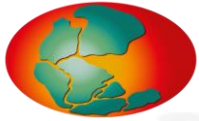


Introducing ...



PANGAEA.

Data Publisher for Earth & Environmental Science



PANGAEA data publisher

- Information system for long-term archival and publication of scientific data
- Established $\pm$ 30 years ago
- Hosted by:

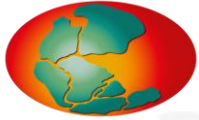


- Accredited:



The screenshot shows the PANGAEA Data Publisher website. At the top, the PANGAEA logo and tagline "Data Publisher for Earth & Environmental Science" are visible, along with the URL "www.pangaea.de". The main content area includes a "Submit Data" button, a welcome message, and a search bar. Below these are ten category tiles, each with a representative image and a count of items:

Category	Count
CHEMISTRY	191458
LITHOSPHERE	131657
BIOLOGICAL CLASSIFICATION	33297
ATMOSPHERE	29584
PALEONTOLOGY	25607
OCEANS	21678
ECOLOGY	17616
LAND SURFACE	7738
BIOSPHERE	4258
GEOPHYSICS	3738



PANGAEA working group

- Team consists of MARUM and AWI staff
- + Associated partner institutes
- + Associated research projects



and more...





Data variety

- multidisciplinary data
- heterogeneous data types:

tabular data

images

audiofiles

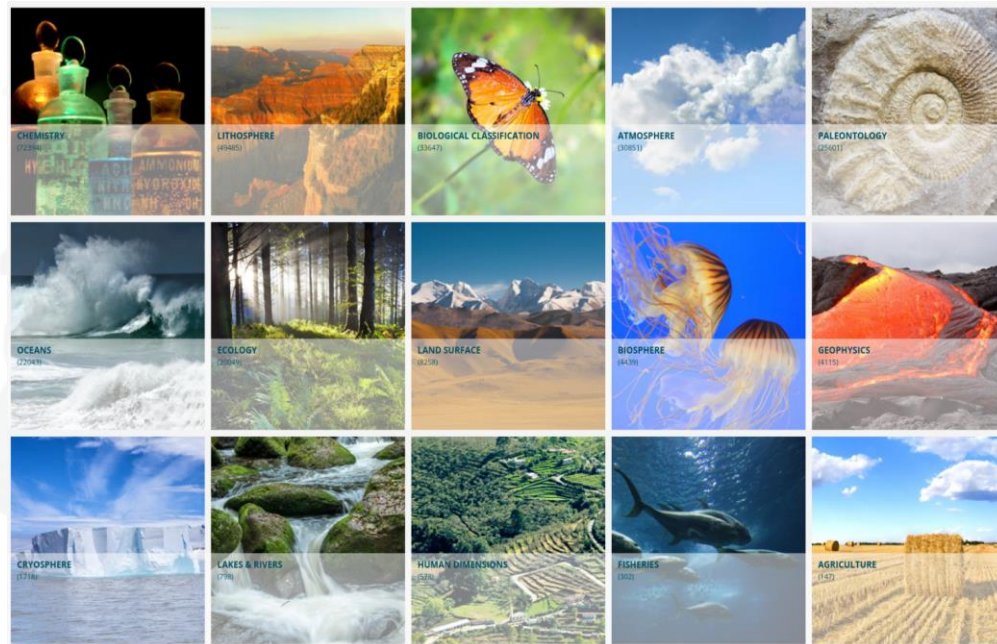
videos

netCDF

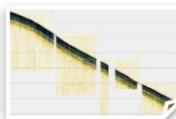
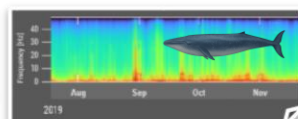
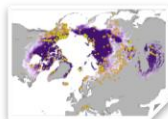
shapefiles, GeoTiffs, raster files

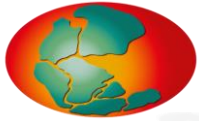
proprietary formats (segy. LAS,..)

1	2	3	4	5	6	7
Label	Mineral	Mo	SiO2 [%]	TiO2 [%]	Al2O3 [%]	Cr2O3 [%]
W216 nm	Garnet	12	40.45	0.05	22.54	0.36
W216 core	Garnet	12	40.64	0.03	22.56	0.38
W218 nm	Garnet	12	39.97	0.21	22.10	0.51
W218 core	Garnet	12	40.14	0.07	22.28	0.59
W240	Garnet	12	40.65	0.08	22.18	0.33
W240	Garnet	12	39.95	0.05	21.98	0.38
W242A	Garnet	12	41.29	0.00	23.16	0.22
W242A	Garnet	12	41.04	0.06	23.27	0.14
W232 rim	Garnet	12	39.91	0.02	22.50	0.02
W232 core	Garnet	12	39.43	0.06	22.26	



Code and genetic data
can be linked in
PANGAEA datasets





PANGAEA key aspects

Open Access and Long-term Data Archiving

FAIR Principles: The platform ensures data integrity and usability for scientific work.

Persistent Citation with DOI: Every published dataset is assigned a permanent DOI.

Metadata Quality and Interoperability: Datasets come with comprehensive metadata descriptions and employ standardized exchange formats (e.g., **INSPIRE, ISO 19115, Dublin Core, Darwin Core...**)

Global Recognition/Certification: PANGAEA is accredited by major organizations e.g. **CoreTrustSeal**

Curation and Community: The editorial services are conducted by expert curators, benefiting individual researchers and scientific projects.

Integration with Scientific Publishing: PANGAEA is a recommended repository for numerous scientific journals, ensuring cross-referencing of datasets and articles.



How to publish data with PANGAEA



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



PANGAEA.

Data Publisher for Earth & Environmental Science

SEARCH SUBMIT HELP ABOUT CONTACT

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

Basic Information

Title*

My great data about everything

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

Authors*

+ Möller Lars lars.moeller@pa Affiliation(s) X

+ Add author

Please, enter the author(s) (the principal investigators) 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*

These measurements were taken a long time ago ... almost got forgotten in my drawer. But now I decided to share it with the world!

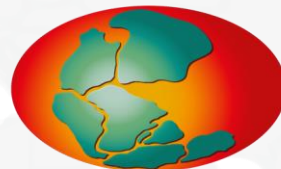
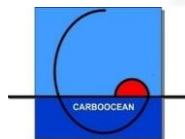
Submission form

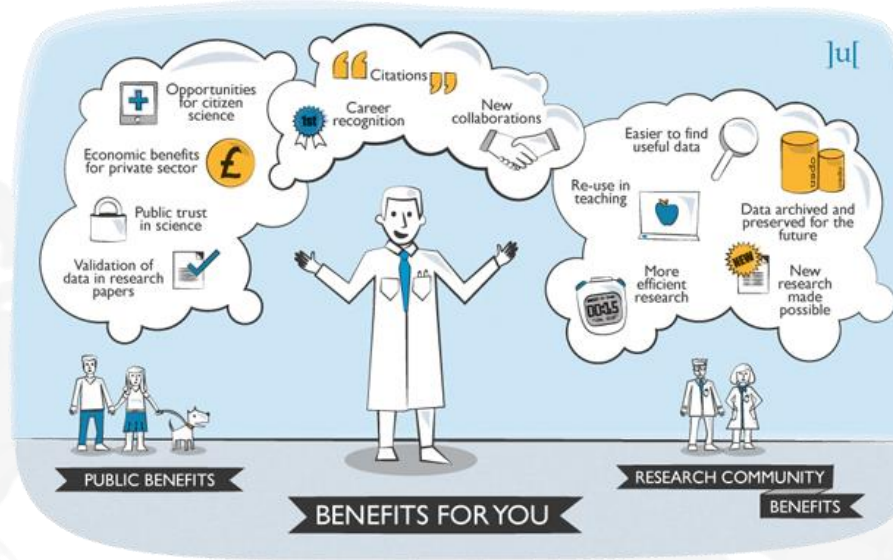
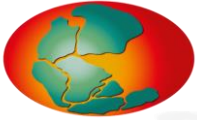




Data access

- ✓ publishers and metric systems
- ✓ search engines
- ✓ community & project portals
- ✓ national & international research data infrastructures





Thank you!

Questions?

<https://www.pangaea.de/submit/>

Look at <https://wiki.pangaea.de>