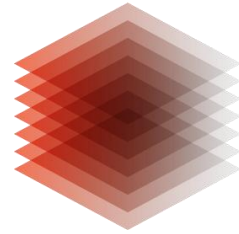


---

LEIBNIZ INFORMATION CENTRE  
FOR SCIENCE AND TECHNOLOGY  
UNIVERSITY LIBRARY



**TIB**

## **DOIs for Research Data**

Open Science Days 2017, 16.-17. Oktober 2017, Berlin  
Britta Dreyer, Technische Informationsbibliothek (TIB)  
<http://orcid.org/0000-0002-0687-5460>



---






## **Scope**

- 1. DataCite Services**
- 2. Data Citation**
- 3. Connecting Scholarly Output**
- 4. Scholarly Link Exchange (Scholix)**
- 5. Event Data**
- 6. ORCID Integration**

# History

- In 2004 TIB became the global agent for the registration of data DOIs
- The first data set with a DOI from the World Data Center for Climate (WDCC) at DKRZ available on the Internet 2004-03-18:

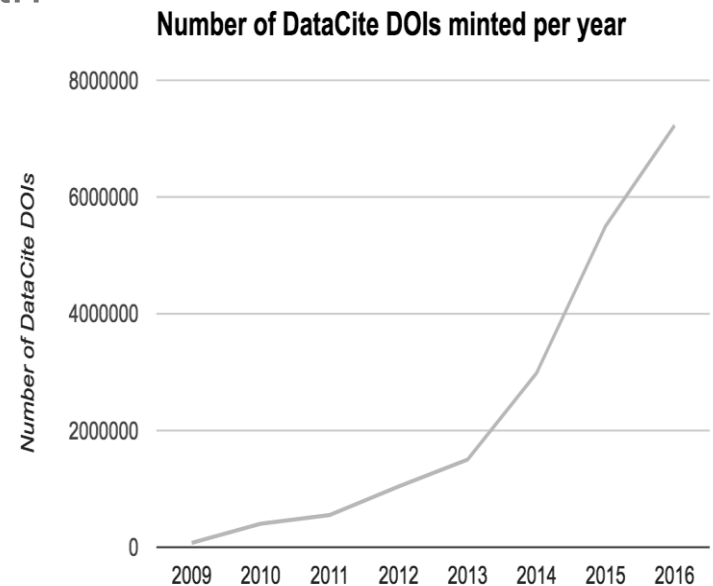
DOI: 10.1594/WDCC/EH4\_OPYC\_SRES\_A2

EH4_OPYC_SRES_A2_ACLCAC10	 dataset ▼
EH4_OPYC_SRES_A2_ACLCAC100	 dataset ▼
EH4_OPYC_SRES_A2_ACLCAC1000	 dataset ▼
EH4_OPYC_SRES_A2_ACLCAC150	 dataset ▼
EH4_OPYC_SRES_A2_ACLCAC200	 dataset ▼

# DataCite - A quick snapshot



- German charitable association founded 2009
- 50 members worldwide
- > 1300 data centres
- > 10 million DOIs created
- More than 8 million resolutions/month



## DataCite - Mission

**DataCite** is the leading global provider of DOIs for research data, enabling users to **register, find, use, connect** and **track** research data.

# Register DOI

All Data Centers :

Resource Types	
<input type="checkbox"/> Dataset	3,659,728
<input type="checkbox"/> Text	2,307,327
<input type="checkbox"/> Image	963,830
<input type="checkbox"/> Collection	434,880
<input type="checkbox"/> Other	352,965
<input type="checkbox"/> Physical object	72,587
<input type="checkbox"/> Software	42,034
<input type="checkbox"/> Audiovisual	26,374
<input type="checkbox"/> Event	7,667
<input type="checkbox"/> Film	1,540
<input type="checkbox"/> Sound	1,210
<input type="checkbox"/> Model	815
<input type="checkbox"/> Interactive resource	621
<input type="checkbox"/> Workflow	270
<input type="checkbox"/> Service	38

Total Works: 9,143,720

Max Planck Gesellschaft:

Resource Types	
<input type="checkbox"/> Text	1,522
<input type="checkbox"/> Dataset	350
<input type="checkbox"/> Collection	53
<input type="checkbox"/> Image	17
<input type="checkbox"/> Software	12
<input type="checkbox"/> Audiovisual	7
<input type="checkbox"/> Physical object	5
<input type="checkbox"/> Workflow	4
<input type="checkbox"/> Other	3

Total Works: 2,067

<https://search.datacite.org>

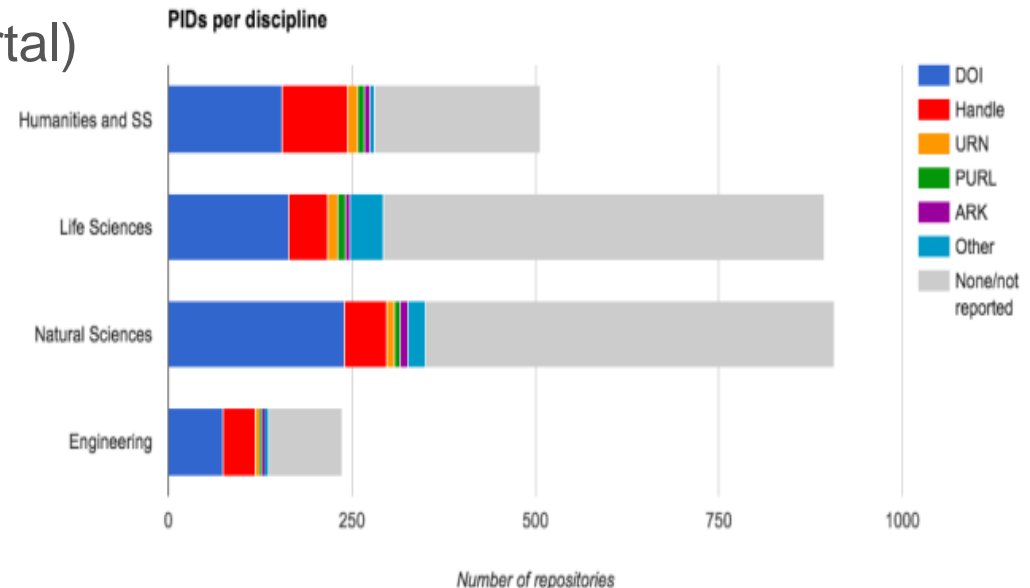
# Find a Repository for your Research Data



➤ 750 data centres in the re3data registry assign DataCite DOIs to data.

## Types:

- Multidisciplinary (e.g. Figshare)
- Discipline specific (e.g. PANGAEA)
- Institution specific (e.g. HEP Data from CERN)
- Resource specific (TIB AV-Portal)





Nano-Roboter im Körper: Zukunft der Medizin



COMPAMED

Max - Planck - Institut für Intelligente Systeme

MAX-PLANCK-GESELLSCHAFT

UNIVERSITÄT STUTTGART

Institut für Materialwissenschaft

00:22 | 05:55

Zitierlink des Filmsegments <https://doi.org/10.5446/15401#t-00:32,00:37>

Embed Code

```
<iframe width="560" height="315" scrolling="no" src="//av.tib.eu/player/15401" frameborder="0" allowfullscreen></iframe>
```

Video herunterladen

> DVD bestellen

Automatisierte Medienanalyse i

BETA

Erkannte Entitäten Sprachtranskript

Suchen ...

Spracherkennung  Texterkennung  Bildinhalt

Computeranimation

00:08

Eisenbahnbetrieb | Besprechung/Interview | Systems <München>

Computeranimation

00:37

Messschraube | Schraube | Besprechung/Interview

01:11

Besprechung/Interview

01:28

Viskose | Fließverhalten



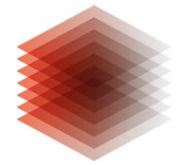
## Granularity – Recommendations (International DOI Foundation)

“A DOI name can be assigned to any object, regardless of the extent to which that object might be a component part of some larger entity.

DOI names can be assigned at any desired degree of precision and granularity that a registrant deems to be appropriate.”

DOI Handbook ([https://www.doi.org/doi\\_handbook/2\\_Numbering.html#2.3.2](https://www.doi.org/doi_handbook/2_Numbering.html#2.3.2))





- 1. Citation:** The current citation and research practices among the client's user community: what is likely to be cited?
- 2. The use of data:** The needs of various stakeholders: how will funders/publishers/administrators etc. use the data?
- 3. The type of resource:** for example a complex dataset may require a more granular identifier structure than a document or image file.
- 4. Sustainability:** The client must be able to maintain each item with a DOI name in accordance with DataCite client responsibilities.

## Recommendations DataCite/datacite (2)

If necessary:

- Several DOI names for the different granularity level  
and
- Connect Metadata record element `<relatedidentifier>` with  
*"isPartOf/hasPart"*

Rauber et al, Data Citation of Evolving Data: Recommendations of the Working Group on Data Citation (WGDC), 2017, RDA,  
<https://b2share.eudat.eu/records/ead2dc65f599497f81cf403b97fcfc0>

# Granularity Example



**PANGAEA®**  
Data Publisher for Earth & Environmental Science

## Data Description

- Citation:** **WOCE Hydrographic Programme, WHP (2002):** Hydrochemistry measured on water bottle samples during Ryofu Maru cruise 49RY9407\_1 on section P09. doi:10.1594/PANGAEA.837292
- Related to:** **WOCE (2002):** World Ocean Circulation Experiment, Global Data, Version 3.0. *WOCE International Project Office, WOCE Report, Southampton, UK; U.S. National Oceanographic Data Center, Silver Spring, 180/02*, DVD-ROM
- Further details:** [WHP cruise summary information of section P09 \(WOCE\)](#)
- Project(s):** [World Ocean Circulation Experiment \(WOCE\)](#)
- Coverage:** *Median Latitude: 25.122751 \* Median Longitude: 137.036789 \* South-bound Latitude: 13.990700 \* West-bound Longitude: 136.954700 \* North-bound Latitude: 34.250000 \* East-bound Longitude: 137.448200*
- Date/Time Start: 1994-07-08T16:58:00 \* Date/Time End: 1994-07-26T21:28:00*
- Minimum DEPTH, water: 0.00 m \* Maximum DEPTH, water: 5589.70 m*
- Event(s):** **49RY9407\_1/1-1** [?](#) \* *Latitude: 34.250000 \* Longitude: 137.002300 \* Date/Time: 1994-07-08T16:58:00 \* Elevation: -150.0 m \* Campaign: 49RY9407\_1 \* Ryofu Maru \* Device: CTD/Rosette (CTD-RO) \* Comment: Section P09*
- 49RY9407\_1/10-1** [?](#) \* *Latitude: 32.816500 \* Longitude: 137.000300 \* Date/Time: 1994-07-10T02:30:00 \* Elevation: -3895.0 m \* Campaign: 49RY9407\_1 \* Ryofu Maru \* Device: CTD/Rosette (CTD-RO) \* Comment: Section P09*
- 49RY9407\_1/10-2** [?](#) \* *Latitude: 32.806800 \* Longitude: 137.077700 \* Date/Time: 1994-07-10T04:16:00 \* Elevation: -4015.0 m \* Campaign: 49RY9407\_1 \* Section P09*
- +

## DataCite Metadata Schema

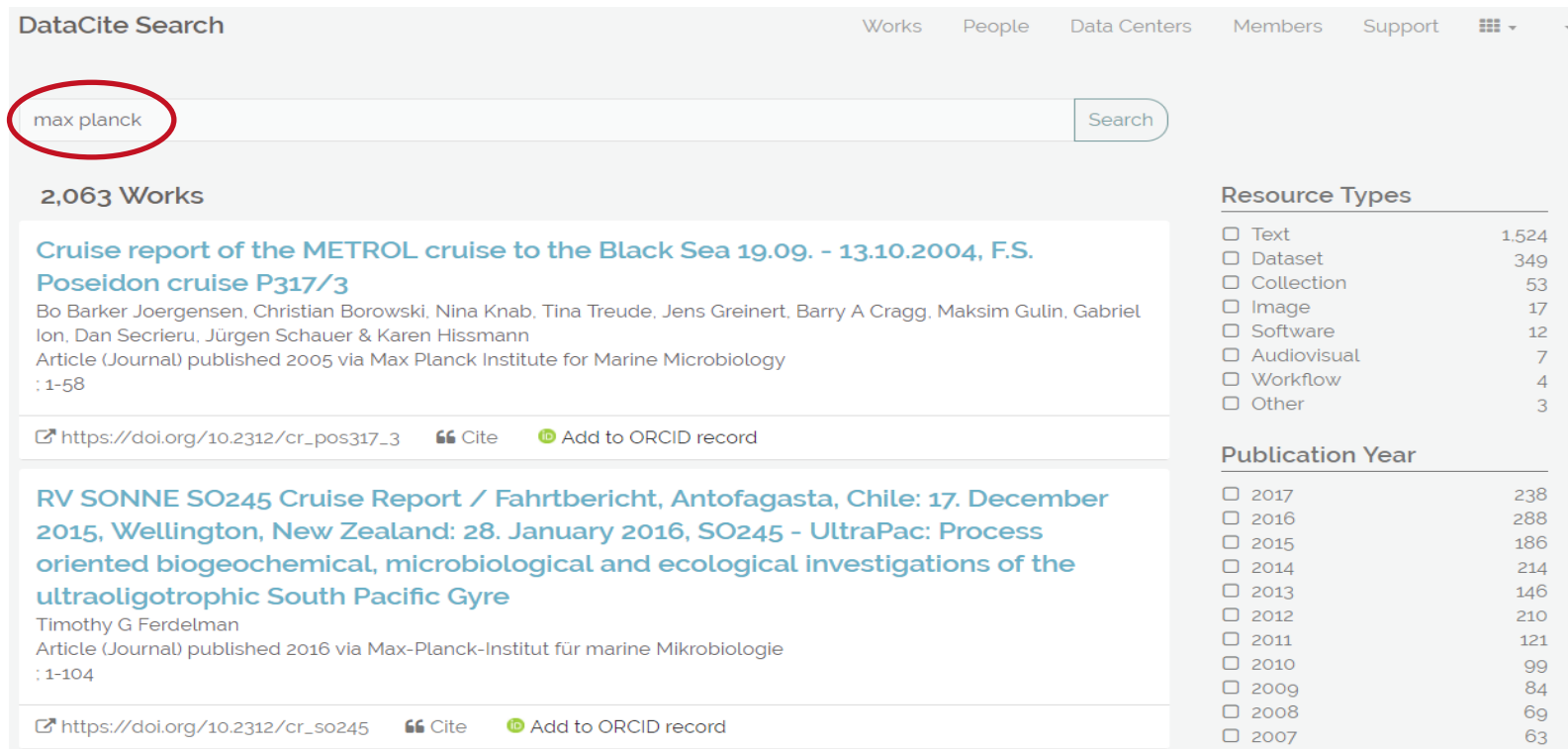
- relatively simple schema, maintained by DataCite members
- flexible with regards to resource type
- support for collections
- multiple relation types for related content

**Findable, Accessible, Interoperable, and Re-usable = FAIR**

# Find Resources

Find resources with DOIs and associated information.

- DataCite API
- DataCite Search
- DataCite OAI-PMH



The screenshot shows the DataCite Search website. At the top, there is a navigation bar with links for 'Works', 'People', 'Data Centers', 'Members', and 'Support'. A search bar contains the text 'max planck' and a 'Search' button. Below the search bar, it indicates '2,063 Works'. Two search results are displayed:

- Result 1:** 'Cruise report of the METROL cruise to the Black Sea 19.09. - 13.10.2004, F.S. Poseidon cruise P317/3'. Authors: Bo Barker Joergensen, Christian Borowski, Nina Knab, Tina Treude, Jens Greinert, Barry A Cragg, Maksim Gulin, Gabriel Ion, Dan Secieru, Jürgen Schauer & Karen Hissmann. Published 2005 via Max Planck Institute for Marine Microbiology. DOI: 1-58.
- Result 2:** 'RV SONNE SO245 Cruise Report / Fahrtbericht, Antofagasta, Chile: 17. December 2015, Wellington, New Zealand: 28. January 2016, SO245 - UltraPac: Process oriented biogeochemical, microbiological and ecological investigations of the ultraoligotrophic South Pacific Gyre'. Author: Timothy G Ferdelman. Published 2016 via Max-Planck-Institut für marine Mikrobiologie. DOI: 1-104.

On the right side, there are two filter sections:

- Resource Types:** A list of resource types with checkboxes and counts: Text (1,524), Dataset (349), Collection (53), Image (17), Software (12), Audiovisual (7), Workflow (4), and Other (3).
- Publication Year:** A list of years from 2007 to 2017 with checkboxes and counts: 2017 (238), 2016 (288), 2015 (186), 2014 (214), 2013 (146), 2012 (210), 2011 (121), 2010 (99), 2009 (84), 2008 (69), and 2007 (63).

# MPG Research Data Publications



Data Centers			
<input type="checkbox"/>	TIB Hannover	697	<input type="checkbox"/> TIB KMO / FLOWWORKS GmbH
<input type="checkbox"/>	Max Planck Digital Library	674	<input type="checkbox"/> GESIS Leibniz Institute for the Social Sciences
<input type="checkbox"/>	World Data Center for Climate	105	<input type="checkbox"/> Coherent X-ray Imaging Data Bank
<input type="checkbox"/>	Joint Research Centre's Institute of Energy	79	<input type="checkbox"/> Columbia University Libraries/Information Services (CUL/IS)
<input type="checkbox"/>	ZENODO - Research. Shared.	62	<input type="checkbox"/> Humboldt-Universität zu Berlin Arbeitsgruppe Elektronisches Publizieren am Computer- und Medienservice (CMS)
<input type="checkbox"/>	Max Planck Institute for Human Development	59	<input type="checkbox"/> ResearchGate
<input type="checkbox"/>	University of Cambridge	32	
<input type="checkbox"/>	PANGAEA - Data Publisher for Earth & Environmental Science	31	
<input type="checkbox"/>	figshare Academic Research System	30	

# Use Resources

Access to the content that was registered, and information how it can be used.

- License information in metadata
- Most of the content available without restrictions
- Directly access content via Content Resolver Service



## Methane oxidation rates of sediment core MEDECO2-D337-PC-14

Antje Boetius, Janine Felden & Christina Bienhold

Dataset published 2012 via PANGAEA - Data Publisher for Earth & Environmental Science



Download

- DataCite XML
- RDF/XML
- Schema.org JSON-LD
- Citeproc JSON

<https://doi.org/10.1594/pangaea.801921>

Cite

Add to ORCID record

```
- <rightsList>  
  <rights rightsURI="http://creativecommons.org/licenses/by/3.0/">Creative Commons Attribution 3.0 Unported (CC-BY)</rights>  
</rightsList>
```



## Citation Recommendations

1. All datasets intended for citation must have a **globally unique persistent identifier** that can be expressed as unambiguous URL.
2. Persistent identifiers for datasets must support **multiple levels of granularity**, where appropriate.
3. This persistent identifier expressed as URL must **resolve to a landing page** specific for that dataset.
4. The persistent identifier must be embedded in the landing page in **machine-readable format**.
5. The repository must provide **documentation and support** for data citation.

# Cite Resources

## 1. DataCite Search

### Methane oxidation rates of sediment core MEDECO2-D337-PC-14

Antje Boetius, Janine Felden & Christina Bienhold

Dataset published 2012 via PANGAEA - Data Publisher for Earth & Environmental Science




<https://doi.org/10.1594/pangaea.801921>  Cite  Add to ORCID record

#### Methane oxidation rates of sediment core MEDECO2-D337-PC-14

APA Harvard MLA Vancouver Chicago IEEE BibTeX RIS

Boetius, A., Felden, J. and Bienhold, C. (2012) 'Methane oxidation rates of sediment core MEDECO2-D337-PC-14'. PANGAEA - Data Publisher for Earth & Environmental Science. doi: 10.1594/pangaea.801921.

 Copy to Clipboard

<https://search.datacite.org/works?query=max+planck&resource-type-id=dataset&data-center-id=tib.mpdl#>

# DOI Landing Page - Best Practice

## Deep-water amphipods from mooring time-series FEV17 in 800 m depth at AWI HAUSGARTEN

Angelina Kraft, Eduard Bauerfeind, Eva-Maria Nöthig, Michael Klages, Agnieszka Beszczynska-Möller & Ulrich Bathmann

Dataset published 2013 via PANGAEA - Data Publisher for Earth & Environmental Science



Is part of [1](#)

References [1](#)

<https://doi.org/10.1594/PANGAEA.809438>  Cite




**PANGAEA.**

Data Publisher for Earth & Environmental Science

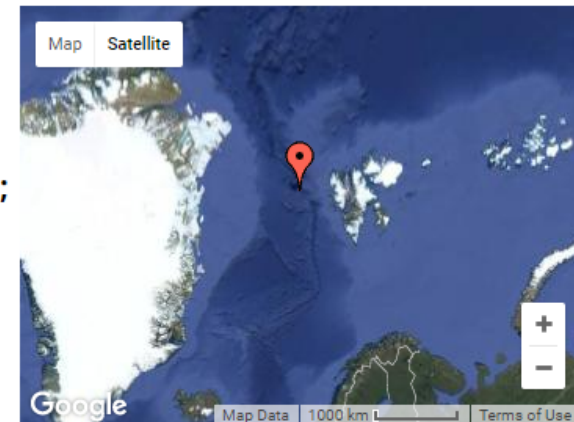
*Citation:*

**Kraft, Angelina; Bauerfeind, Eduard; Nöthig, Eva-Maria; Klages, Michael; Beszczynska-Möller, Agnieszka; Bathmann, Ulrich (2013):** Deep-water amphipods from mooring time-series FEV17 in 800 m depth at AWI HAUSGARTEN. doi:10.1594/PANGAEA.809438,

*In supplement to:* **Kraft, Angelina; Bauerfeind, Eduard; Nöthig, Eva-Maria; Klages, Michael; Beszczynska-Möller, Agnieszka; Bathmann, Ulrich (2013):** Amphipods in sediment traps of the eastern Fram Strait with focus on the life-history of the lysianassoid *Cyclocaris guilelmi*. *Deep Sea Research Part I: Oceanographic Research Papers*, **73**, 62-72, doi:10.1016/j.dsr.2012.11.012

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

[RIS Citation](#) [BibTeX Citation](#) [Text Citation](#) [Facebook](#) [Twitter](#) [Google+](#) [Show Map](#) [Google Earth](#)



# Cite Resources – Citation Formatter

## DOI Citation Formatter

Paste your DOI:

For example 10.1145/2783446.2783605

Select Formatting Style:

Begin typing (e.g. Chicago or IEEE.) or use the drop down menu.

Select Language and Country:

Begin typing (e.g. en-GB for English, Great Britain) or use the drop down menu.

Format

(1) Rödenbeck, C.; Heimann, M. Jena CarboScope: Atmospheric CO2 inversion, 2015.

Copy to clipboard

Do you want to integrate this service? Check the [Documentation](#)

### DOI Registration Agencies



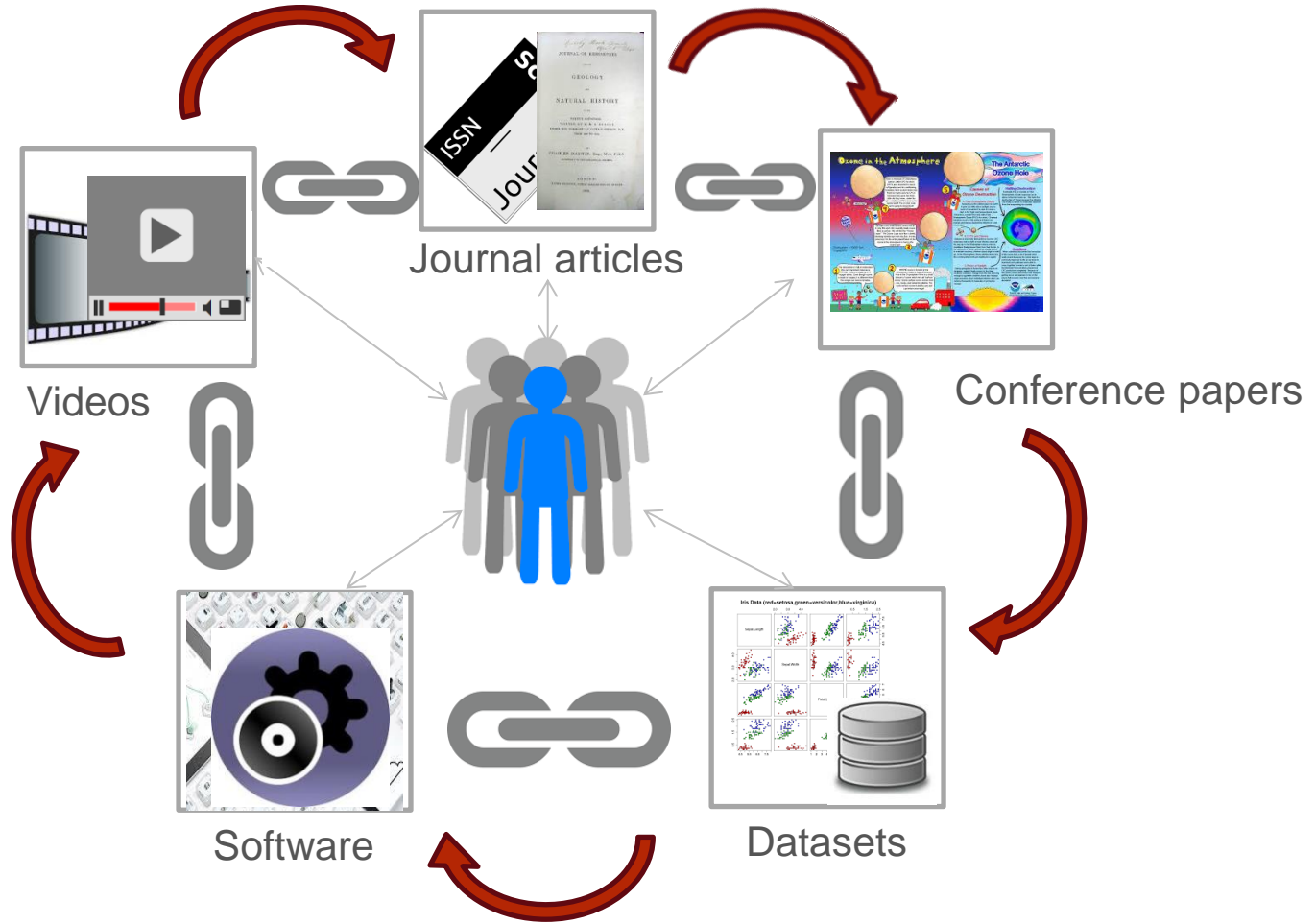
## Connecting scholarly output

Connect resources, which have a DataCite DOI, to other resources - for example:

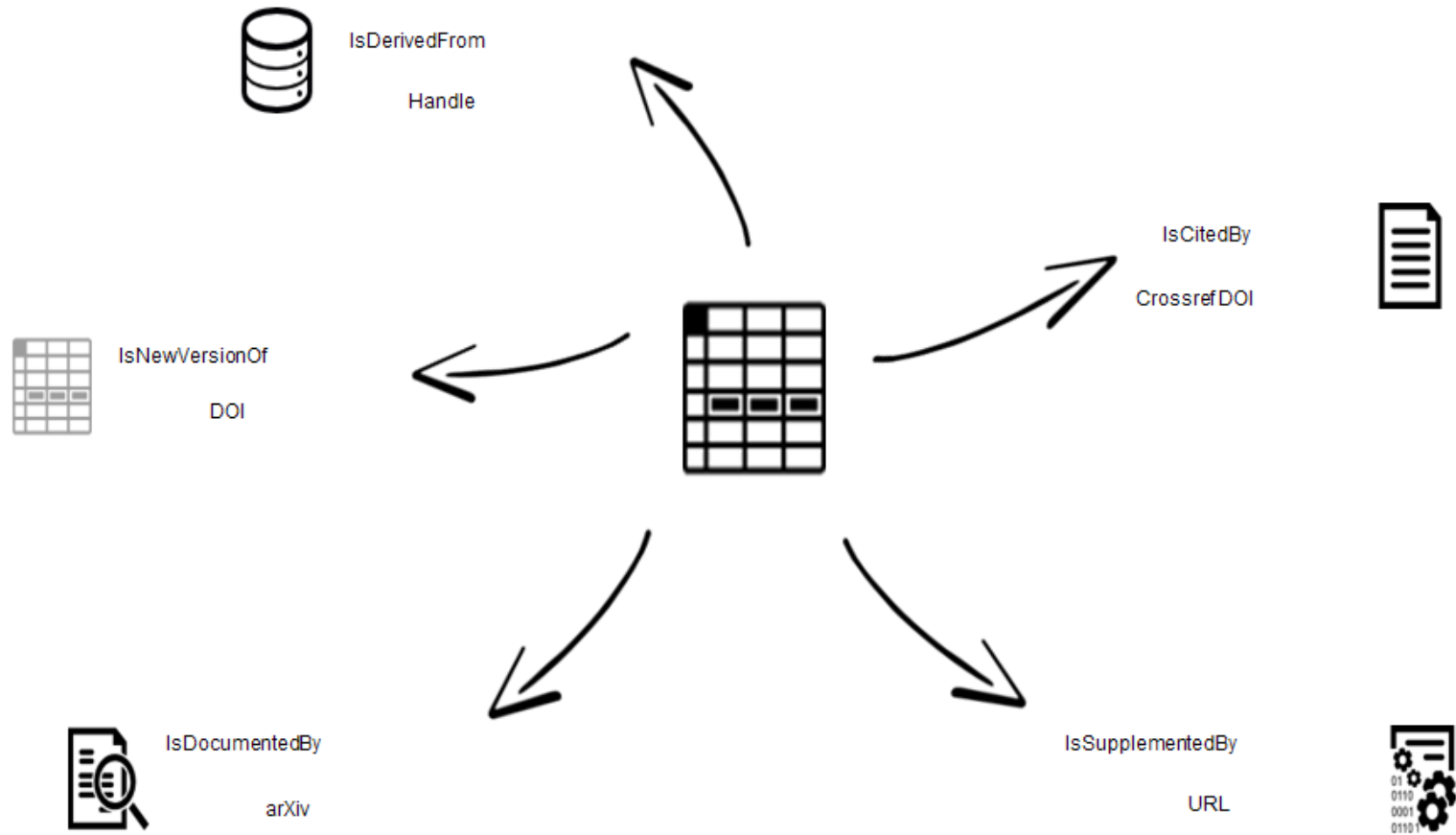
- ✓ New versions of the same dataset,
- ✓ Collections of related datasets,
- ✓ or articles citing the dataset. ....AND

→ linking these resources to the people and organizations (coming next) who have contributed to their generation.

# Seamless Integration across the research life cycle



# Relation Types



# Related Resources

## Climatological observations from ship logbooks between 1750 and 1854 (release 2.1)

Phil D Jones, Dennis A Wheeler, Gunther P Können, Frits B Koek, Maria del Rosario Prieto & Ricardo Garcia-Herrera

Collection of datasets published 2007 via PANGAEA - Data Publisher for Earth & Environmental Science

The Climatological Database for the World's Oceans: 1750-1854 (CLIWOC) project, which concluded in 2004, abstracted more than 280,000 daily weather observations from ships' logbooks from British, Dutch, French, and Spanish naval vessels engaged in imperial business in the eighteenth and nineteenth centuries. These data, now compiled into a database, provide valuable information for the reconstruction of oceanic wind field patterns for this key period that precedes the time in which anthropogenic influences on climate became...



DataCite (RelatedIdentifier) 4,774

<http://doi.org/10.1594/PANGAEA.611088>  Cite  Add to ORCID record

Relations 4,778

## Meteorological observations during JASON cruise from St. Eustacius to Hellevoetsluis started at 1780-07-07

Ricardo Garcia-Herrera, Gunther P Können, Dennis A Wheeler, Maria del Rosario Prieto, Phil D Jones & Frits B Koek

Work published 2010 via PANGAEA - Data Publisher for Earth & Environmental Science

Is part of <http://doi.org/10.1594/PANGAEA.611088> DataCite (RelatedIdentifier)

<http://doi.org/10.1594/PANGAEA.749881>  Cite

## Meteorological observations during PRINCIPE cruise from La Coruña to La Habana started at 1778-06-06

Ricardo Garcia-Herrera, Gunther P Können, Dennis A Wheeler, Maria del Rosario Prieto, Phil D Jones & Frits B Koek

Work published 2010 via PANGAEA - Data Publisher for Earth & Environmental Science

Data Center  
PANGAEA - Publishing Network for  
Geoscientific and Environmental  
Data

Member  
German National Library of  
Science and Technology

Share on



### Sources

- DataCite (RelatedIdentifier) 4,775
- DataCite (Crossref) 3

### Relation Types

- Is part of 4,775
- Is referenced by 3

3 article  
reference  
lists



# Scholarly Link Exchange (Scholix)

- RDA/WDS Scholix Working Group 2016
- Group aims to enable a comprehensive global view of the links between scholarly literature and data, and doing this by establishing:
  1. An interoperability framework with guidelines and standards
  2. Enabling infrastructure
  3. Outreach and support for communities of practice
- Guidelines finalized by the end of 2017

Scholix is supported by the following organizations:



# Minimal Information – Heavy Use of PIDs and their Metadata

- Standardized information exchange will potentially include all data centers and publishers

Link Information Package	
<b>Link Publication Date (1)</b> <b>Link Provider (1..N)</b> <b>Relationship Type (1)</b> License URL (0..1)	
Source Object	Target Object
<b>Object Identifier (1)</b> <b>Object Type (1)</b> Object Title (0..1) Object Publisher (0..1) Object Creator (0..N) Object Publication Date (0..1)	<b>Object Identifier (1)</b> <b>Object Type (1)</b> Object Title (0..1) Object Publisher (0..1) Object Creator (0..N) Object Publication Date (0..1)

- The initial group of Scholix hubs includes:
  - Crossref, working with publishers
  - DataCite, working with data centers
  - OpenAIRE, working with institutional repositories

# Linking Data and Articles

## Research - Conceptual Model

- **Linkage as Triples.** In the form *subject-predicate-object*, consistent with the Resource Description Framework (RDF) data model.
- **Describing the relation.** Additional information such as relation type (e.g. *A is new version of B*) and provenance.
- **Persistent Identifiers as HTTP URIs.** This makes them actionable, and compatible with the RDF data model.
- **Centralized infrastructure for persistent identifier linking.** Provided for example by ORCID and DataCite, facilitating discovery.

# Statistics of provided Links



Content provider	Contributed links	Referred objects	Referred publications	Referred datasets	Referred objects of unknown typology
	36	33	18	18	0
<a href="#">OpenAIRE</a>	29284	17535	14125	14642	517
<a href="#">RCSB</a>	175648	131786	87713	87824	111
<a href="#">Pangaea</a>	856181	238244	112847	525880	217454
<a href="#">Datasets in Datacite</a>	33762553	2998094	886400	31408133	1468020
<a href="#">Cambridge Crystallographic Data Centre</a>	1276152	906001	634785	638885	2482
<a href="#">3TU.Datacentrum</a>	432	351	0	216	216
<a href="#">ICPSR</a>	266804	70110	133402	133402	0
<a href="#">IEDA</a>	1474	921	603	794	77
<a href="#">Thomson Reuters</a>	48592	28867	23714	24878	0
<a href="#">PubMed</a>	1032816	508456	516408	516408	0
<a href="#">Springer Nature</a>	56510	35289	28237	28255	18
<a href="#">Elsevier</a>	138972	90007	69486	69486	0
<a href="#">Australian National Data Service</a>	19552	12411	9775	9777	0
<a href="#">IEEE</a>	94	59	47	47	0
<a href="#">Crossref</a>	0	392837	0	0	0

# Track Re-Use

## Data Citations

### Started

- DOI resolutions
- Repository usage stats

### Planned

- Wikipedia
- Twitter

### → Forward Data Citations to Data Centers via:

- DataCite Search
- Notifications

# Data Level Metrics (DLM)


- Collects events found via the relatedIdentifier and nameIdentifier attributes of DataCite Metadata







**Data from: Rise of the machines – recommendations for ecologists when using next generation sequencing for microsatellite development.**

Michael G Gardner, Alison J Fitch, Terry Bertozzi, Andrew J Lowe, Michael G Gardner, Alison J Fitch, Terry Bertozzi, Andrew J Lowe  
 DataPackage published 2011 via Dryad Digital Repository

<http://doi.org/10.5061/DRYAD.F1CB2> 

Has part 51 | Is referenced by 1 | **Is cited by 6**



- Europe PMC  <http://doi.org/10.1073/PNAS.1205856110>
- Europe PMC  <http://doi.org/10.1371/JOURNAL.PONE.0084559>
- PLOS  <http://doi.org/10.1371/JOURNAL.PONE.0084559>
- Europe PMC  <http://doi.org/10.3732/APPS.1200295>
- Europe PMC  <http://doi.org/10.1371/JOURNAL.PONE.0040861>
- PLOS  <http://doi.org/10.1371/JOURNAL.PONE.0040861>

Examples | Stats | S...

**Data from: Ontogeny, morphology and taxonomy of the soft-bodied Cambrian ‘mollusc’ Wiwaxia**

Martin R. Smith  
 DataPackage published 2013 via Dryad Digital Repository

<http://doi.org/10.5061/DRYAD.868SM> 

Has part 53 | **Is referenced by 10**



- Datacite  <http://doi.org/10.1111/PALA.12063>
- Wikipedia  <http://en.wikipedia.org/wiki/Wiwaxia>
- Wikipedia  [http://commons.wikimedia.org/wiki/File:Odontogriphus\\_ROM57723.JPG](http://commons.wikimedia.org/wiki/File:Odontogriphus_ROM57723.JPG)
- Wikipedia  [http://commons.wikimedia.org/wiki/File:Wiwaxia\\_corrugata\\_\(mature\).png](http://commons.wikimedia.org/wiki/File:Wiwaxia_corrugata_(mature).png)

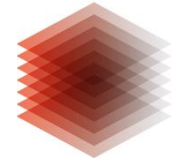
# Making Data Count: Promoting a New Normal

....will develop and deploy the social and technical infrastructure necessary to elevate data to a first-class research output.

1. Develop and publish a **COUNTER code** of practice recommendations for how data usage is measured
2. **Deploy central online hub** for acquiring, managing and presenting DLMs
3. **Integrate new sources and clients of aggregated metrics**

Data Usage Stats	Data Citations
DataONE Federation	PubMed Central
DOI resolver logs via DataCite	Crossref
Institutional repository (Re3data)	Europe PMC

4. Encourage growth and uptake of DLMs through an engaged stakeholder community



## Project Details

Project: **Making Data Count: Promoting a New Normal**

ALFRED P. SLOAN FOUNDATION

Funding: **750 K for 2 years** (June 2017 – June 2019)

Partners: **CDL, DataCite and DataONE**



**Alfred P. Sloan  
FOUNDATION**

- Collaborate with other data metrics initiatives: Crossref Event Data, JISC IRUS UK, NISO Altmetrics working group, RDA/WDS Scholix, etc.
- Start: RDA BoF with relevant stakeholders



University of California

**CDL**

California Digital Library



# Software Repositories



## Matdcal

Kirk Bevan

Simulation Tool published 2015 via nanoHUB

Non-equilibrium Green's Function Density Functional Theory Simulator

<https://doi.org/10.4231/D3JH3D36M> **Quote** Cite

By [Kirk Bevan](#)

*McGill University*

Non-equilibrium Green's Function Density Functional Theory Simulator

Launch Tool

Version 3.0 - published on 09 Jan 2015

[doi:10.4231/D3JH3D36M](https://doi.org/10.4231/D3JH3D36M) [cite this](#)

● ● ● ● Advanced-Expert

👤 [380 users, detailed usage](#)

👤 [18 users in 2 classes](#)

🗉 [1 Citation\(s\)](#)

💬 [1 question \(Ask a question\)](#)

★ [0 review\(s\) \(Review this\)](#)

📌 [0 wish\(es\) \(New Wish\)](#)

→ Share: [f](#) [t](#) [s](#)...

## Citations [Non-affiliated \(1\)](#) | [Affiliated \(0\)](#)

Non-affiliated authors

Yap Siong (2011), "[Molecular Electronics As A Future Electronic Device](#)": pg. -.

[BibTex](#)

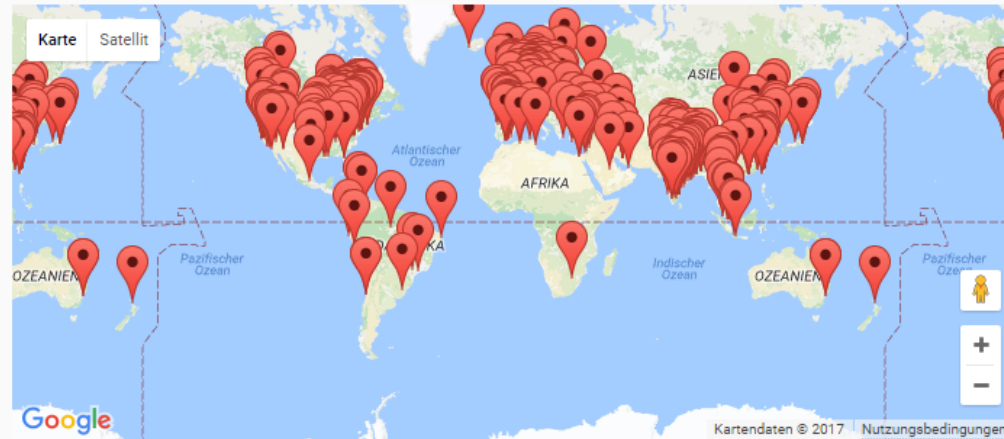
[EndNote](#)

# User Details



## World usage

Location of all "Matdcal" Users Since Its Posting

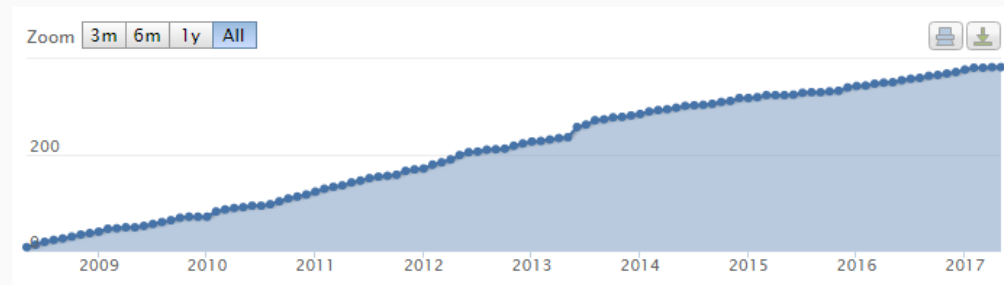


Monthly Yearly **Cumulative**

## Simulation Users

**380**

Apr 2017



## Users By Organization Type

Type	Users
Educational - University	270 (71.05%)
Unidentified	81 (21.32%)
Industry	13 (3.42%)

## Users by Country of Residence

Country	Users
UNITED STATES	68 (34%)
INDIA	50 (25%)
CHINA	22 (11%)
GERMANY	12 (6%)

# ORCID in a Nutshell



- ORCID provides a persistent digital identifier
- Distinguishes you from every other researcher
- Integrates in key research workflows such as manuscript and grant submission,
- Supports automated linkages between you and your professional activities ensuring that your work is recognized.



ORCID

Connecting Research  
and Researchers

# ORCID Profile Service



- DataCite – CrossRef – ORCID Collaboration
- Automatic ORCID Profil Update if ORCID is submitted with DOI metadata (ORCID push)

If you authorize Crossref and DataCite to update your ORCID record



and you add your ORCID to your paper or dataset submission

**ORCID Auto-Update** enabled

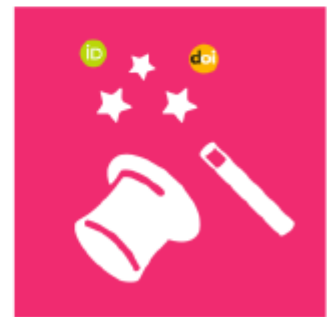
↔ Have works with your ORCID identifier automatically added to your ORCID record.

disable

## Supplementary Data for: "Core-Collapse Supernovae from 9 to 120 Solar Masses Based on Neutrino-powered Explosions"

Tuguldur Sukhbold, Thomas Ertl, Stan Woosley, Justin M. Brown & Hans-Thomas Janka  
Work published 2016 via Max Planck Institute for Astrophysics, 85748 Garching, Germany

<https://doi.org/10.17617/1.b>  Cite  Add to ORCID record



<https://profiles.datacite.org/>

<https://search.datacite.org/>

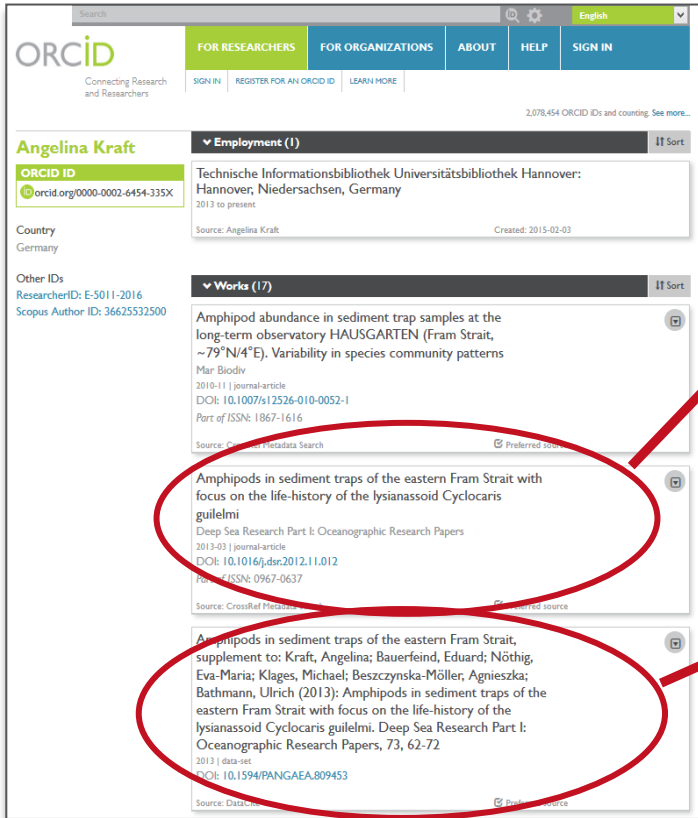
**AUTOMATICALLY!**

# Research Data Publications with ORCID

Digital CV  
(e.g. institutional CRIS, ORCID ...)

Paper / Journal

Institut



ORCID iD profile for Angelina Kraft. The profile shows her employment at Technische Informationsbibliothek Universitätsbibliothek Hannover and her works. Two works are circled in red:

- Amphipods in sediment traps of the eastern Fram Strait with focus on the life-history of the lysianassoid *Cyclocaris guilemi*** (2013-03). DOI: 10.1016/j.dsr.2012.11.012. This work is linked to a ScienceDirect paper.
- Amphipods in sediment traps of the eastern Fram Strait, supplement to: Kraft, Angelina; Bauerfeind, Eduard; Nöthig, Eva-Maria; Klages, Michael; Beszczynska-Möller, Agnieszka; Bathmann, Ulrich (2013): Amphipods in sediment traps of the eastern Fram Strait with focus on the life-history of the lysianassoid *Cyclocaris guilemi*. Deep Sea Research Part I: Oceanographic Research Papers, 73, 62-72** (2013). DOI: 10.1594/PANGAEA.809453. This work is linked to a PANGAEA data repository entry.

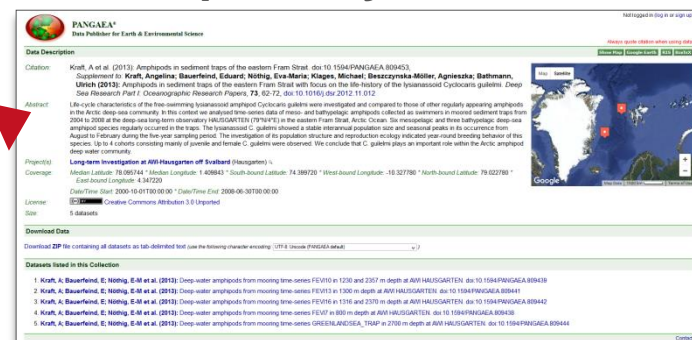


ScienceDirect article titled "Amphipods in sediment traps of the eastern Fram Strait with focus on the life-history of the lysianassoid *Cyclocaris guilemi*". The article is from Deep Sea Research Part I: Oceanographic Research Papers, Volume 73, March 2013, Pages 62-72. The abstract describes the life-cycle characteristics of the free-swimming lysianassoid amphipod *Cyclocaris guilemi* in the Arctic deep-sea community.



TIB website showing the "Artenvielfalt und Funktionsweise arktischer Tiefsee-Ökosysteme" section. It features a microscope icon and text about Arctic deep-sea ecosystems.

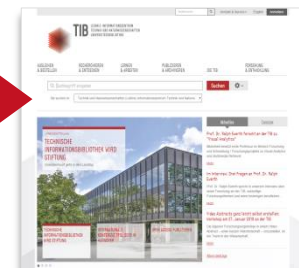
Data Repository  $\updownarrow$  DOI



PANGAEA data repository entry for "Amphipods in sediment traps of the eastern Fram Strait". The entry includes a citation for Kraft et al. (2013) and a detailed description of the data collection, including location (Fram Strait, Arctic Ocean) and sampling dates (2004-2010).

$\updownarrow$

Portal



TIB portal website showing a search bar and navigation options. It features a large image of a modern building and text about research and data services.

# To Dos



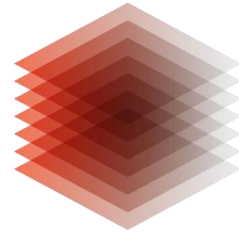
1. Register **ORCID iD**
2. Ask your library to provide you with **DOIs** for your research output
3. **Find a repository** with DOI registration services
4. Write a Data Management Plan for your next research project
5. Activate the automatic push of your DOI publications in DataCite Search

## DataCite Services

<b>ASSIGN DOIS</b>	<a href="https://mds.datacite.org">https://mds.datacite.org</a> <a href="https://api.labs.datacite.org">https://api.labs.datacite.org</a>
<b>METADATA SEARCH</b>	<a href="https://search.datacite.org/">https://search.datacite.org/</a>
<b>EVENT DATA</b>	<a href="https://dlm.datacite.org">https://dlm.datacite.org</a> <a href="https://ls.datacite.org">https://ls.datacite.org</a>
<b>DATA METRICS</b>	<a href="https://makedatacount.org/">https://makedatacount.org/</a>
<b>PROFILES</b>	<a href="https://profiles.datacite.org">https://profiles.datacite.org</a>
<b>RE3DATA</b>	<a href="http://re3data.org">http://re3data.org</a>
<b>CITATION FORMATTER</b>	<a href="http://crosscite.org/citeproc/">http://crosscite.org/citeproc/</a>
<b>STATISTICS</b>	<a href="http://stats.datacite.org">http://stats.datacite.org</a>
<b>SERVICE STATUS</b>	<a href="http://stats.datacite.org">http://stats.datacite.org</a> <a href="http://twitter.com/datacitetech">http://twitter.com/datacitetech</a>
<b>OAI-PMH</b>	<a href="http://oai.datacite.org">http://oai.datacite.org</a>
<b>Content Resolver</b>	<a href="http://data.datacite.org/">http://data.datacite.org/</a>
<b>API</b>	<a href="https://api.datacite.org/">https://api.datacite.org/</a>

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FOR SCIENCE AND TECHNOLOGY  
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**TIB**

**THANK YOU!**

**Further information:**

[www.tib.eu](http://www.tib.eu)

[www.datacite.org](http://www.datacite.org)

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