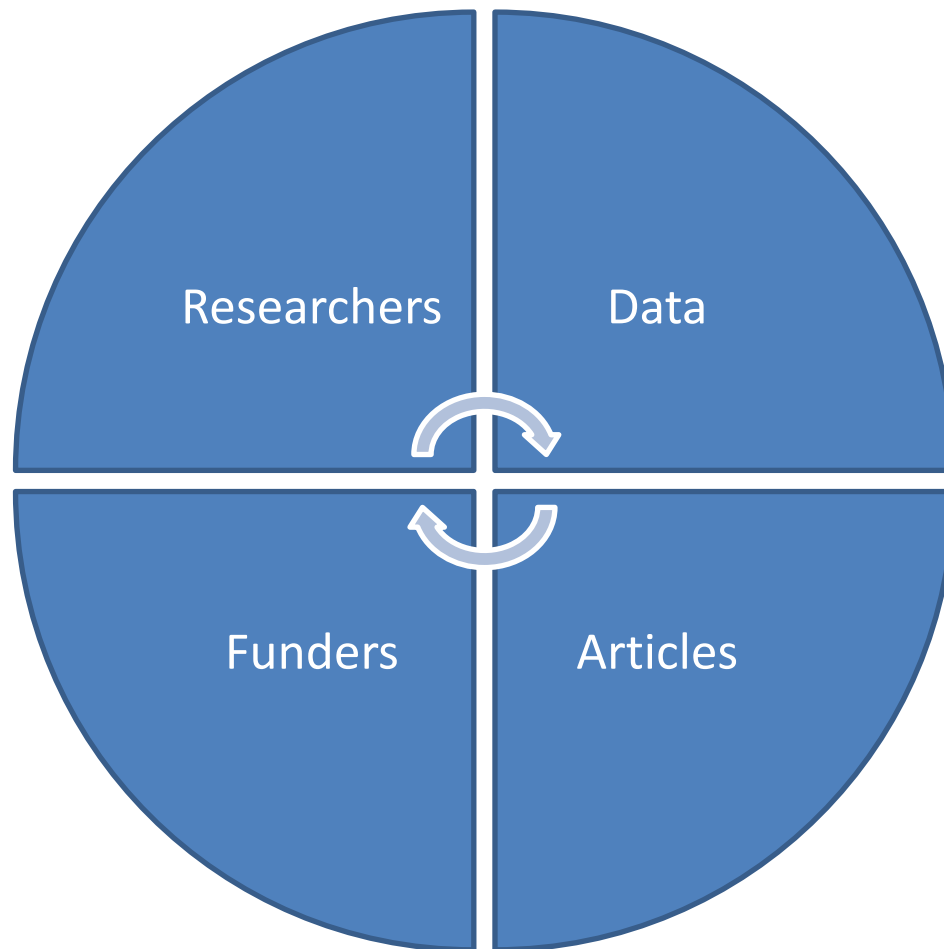


DataCite

Adam Farquhar
DataCite President
ODIN Conference, CERN, 2013-10-18

Making research better –ODIN context



Out of Cite Out of Mind

The use of published digital data, like the use of digitally published literature, depends upon the ability to identify, authenticate, locate, access, and interpret them.

Data citations provide necessary support for these functions, as well as other functions such as attribution of credit and establishment of provenance.

Data Science Journal, Sep 2013

Policies and mandates for data



Makes research better by enabling people to find, share, use, and cite data

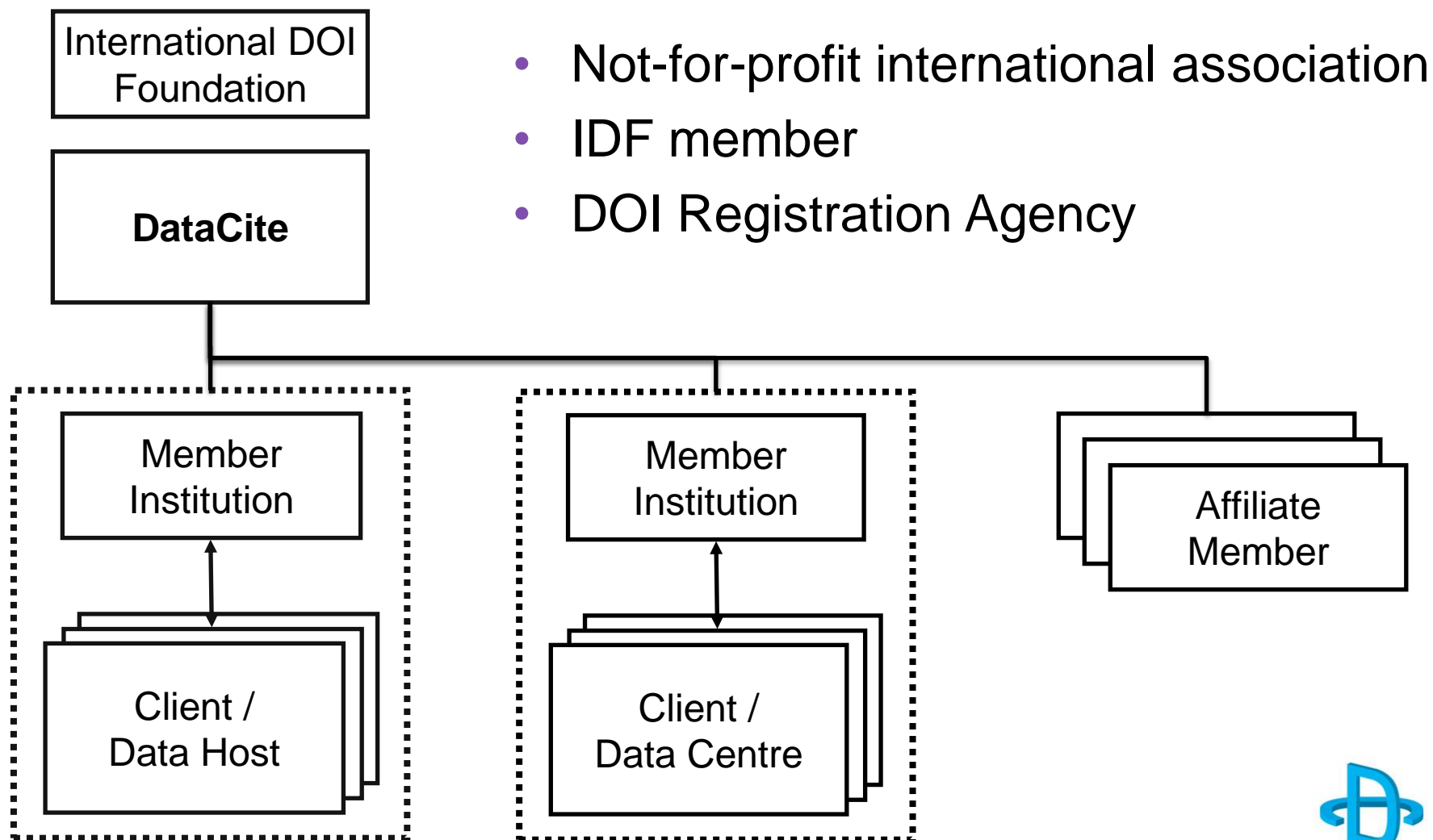
A leading global membership organization offering reliable persistent data identification

We engage researchers, scholars, data centers, libraries, publishers, and funders through advocacy, guidance and services

Strategic objectives

1. Become a sustainable organization
2. Become part of the global research infrastructure
3. Nurture our membership & build strong communities
4. Build and maintain services, guidelines, policies
5. Deliver clear communications

DataCite structure



DataCite history

2004:

- TIB pioneers DOIs for data

2009:

- DataCite founded
- 7 members
- >25 data centres

2010:

- Pilot projects begin
- All members assign DOIs
- 12 members
- > 50 data centres

2011:

- >1,000,000 total DOIs
- >90 data centres
- Metadata schema 2.2
- Shared technical infrastructure
- 16 members

2012:

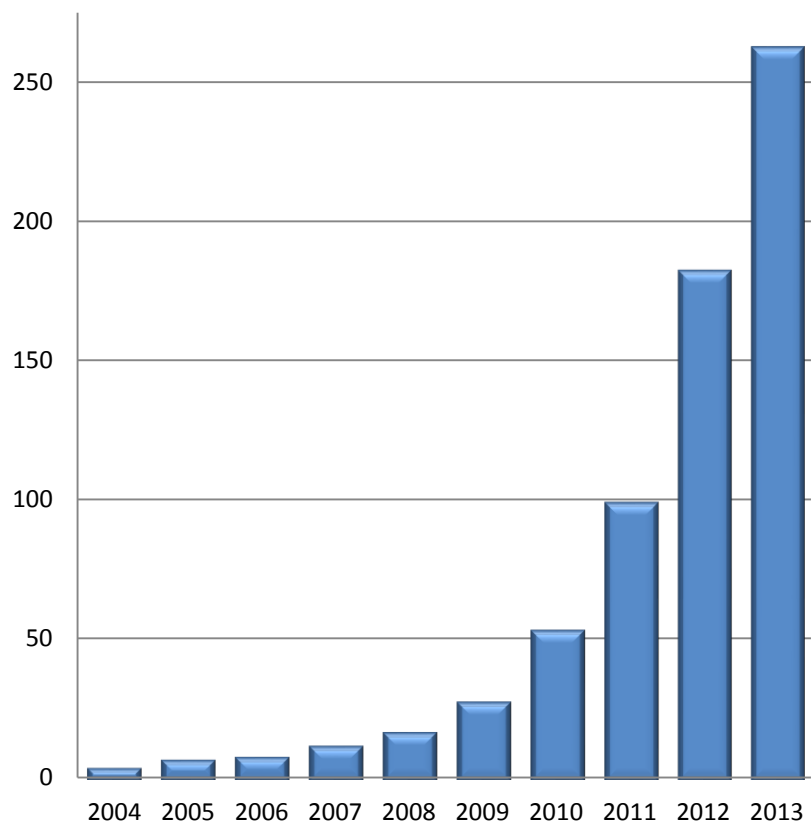
- Production infrastructure
- >1,600,000 total DOIs
- >450,000 new DOIs
- >1,800,000 resolutions
- >160 data centres

2013 Q1-Q3:

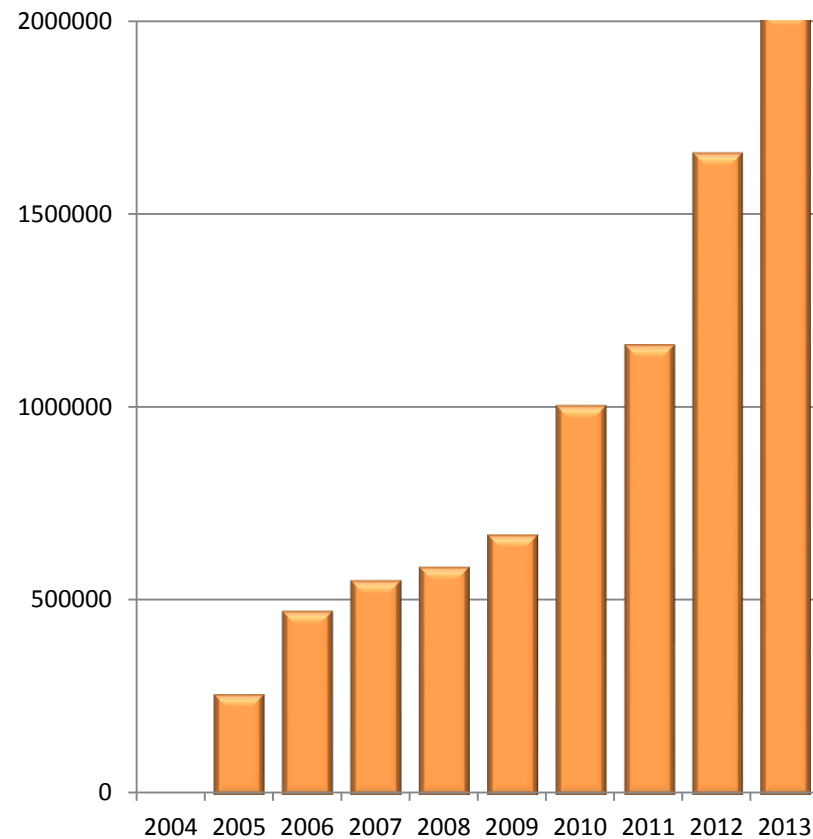
- >2,000,000 total DOIs
- >5,700,000 resolutions
- >350,000 new DOIs
- >250 data centres
- Metadata schema 3.0
- 9 affiliates
- 18 members

DataCite data

Total Data Centres



Total DOIs



DataCite members

- 
1. Technische Informationsbibliothek (TIB)
 2. Canada Institute for Scientific and Technical Information (CISTI),
 3. California Digital Library, USA
 4. Purdue University, USA
 5. Office of Scientific and Technical Information (OSTI), USA
 6. Library of TU Delft, The Netherlands
 7. Technical Information Center of Denmark
 8. The British Library
 9. ZB Med, Germany
 10. ZBW, Germany
 11. Gesis, Germany
 12. Library of ETH Zürich
 13. L'Institut de l'Information Scientifique et Technique (INIST), France
 14. Swedish National Data Service (SND)
 15. Australian National Data Service (ANDS)
 16. Conferenza dei Rettori delle Università Italiane (CRUI)
 17. National Research Council of Thailand (NRCT)
 18. The Hungarian Academy of Sciences

Affiliated members:

1. Digital Curation Center (UK)
2. Microsoft Research
3. Interuniversity Consortium for Political and Social Research (ICPSR)
4. Korea Institute of Science and Technology Information (KISTI)
5. Beijing Genomic Institute (BGI)
6. IEEE
7. Harvard University Library
8. World Data System (WDS)
9. GWDG

DataCite members



DataCite services build on open standards

- DataCite Metadata schema
 - <http://schema.datacite.org>
- DOI an ISO standard: ISO 26324:2012
- DataCite Metadata Store
 - <http://search.datacite.org> – open search
- OAI Harvester
 - <http://oai.datacite.org> – open harvesting
- DataCite statistics (resolution and registration)
 - <http://stats.datacite.org>
- Content negotiation resolves to citation text or RDF metadata
- CrossCite converts citation metadata into many standard formats
 - <http://www.crosscite.org/citeproc/>

2012: STM, CrossRef and DataCite Joint Statement

1. To improve the availability and findability of research data, the signers encourage authors of research papers to **deposit researcher validated data in trustworthy and reliable Data Archives**.
2. The Signers encourage Data Archives to **enable bi-directional linking between datasets and publications** by using established and community endorsed unique persistent identifiers such as database accession codes and DOI's.
3. The Signers encourage publishers and data archives to make visible or increase **visibility of these links** from publications to datasets and vice versa

Example

The dataset:

Storz, D et al. (2009):

Planktic foraminiferal flux and faunal composition of sediment trap L1_K276 in the northeastern Atlantic.

<http://dx.doi.org/10.1594/PANGAEA.724325>

Is supplement to the article:

Storz, David; Schulz, Hartmut; Waniek, Joanna J; Schulz-Bull, Detlef; Kucera, Michal (2009): *Seasonal and interannual variability of the planktic foraminiferal flux in the vicinity of the Azores Current.*

Deep-Sea Research Part I-Oceanographic Research Papers, **56(1)**, 107-124,

<http://dx.doi.org/10.1016/j.dsr.2008.08.009>

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Abstract

Keywords

1. Introduction



2. Hydrography and ecology of the study area

2.1. Oceanography

2.2. Mixed-layer depth and primary production

2.3. Mesoscale variability of the AC/AFZ system

3. Material and methods

3.1. Sediment traps

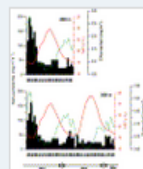
Table 1

3.2. Sample processing and data analysis

Table 2

4. Results

4.1. Bulk particle flux



Deep Sea Research Part I: Oceanographic Research Papers

Volume 56, Issue 1, January 2009, Pages 107–124



Seasonal and interannual variability of the planktic foraminiferal flux in the vicinity of the Azores Current

David Storz^{a,1}, Hartmut Schulz^a, , Joanna J. Waniek^b, Detlef E. Schulz-Bull^b, Michal Kučera^a^a Institute for Geosciences, Sigwartstraße 10, D-72076 Tübingen, Germany^b Leibniz Institute for Baltic Sea Research Warnemünde, Seestraße 15, D-18119 Rostock, Germany<http://dx.doi.org/10.1016/j.dsr.2008.08.009>, How to Cite or Link Using DOI

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Abstract

Planktic foraminiferal (PF) flux and faunal composition from three sediment trap time series of 2002–2004 in the northeastern Atlantic show pronounced year-to-year variations despite similar sea surface temperature (SST). The averaged fauna of the in 2002/2003 is dominated by the species *Globigerinina glutinata*, whereas in 2003/2004 the averaged fauna is dominated by *Globigerinoides ruber*. We show that PF species respond primarily to productivity, triggered by the seasonal dynamics of vertical stratification of the upper water column. Multivariate statistical analysis reveals three distinct species groups, linked to bulk particle flux, to chlorophyll concentrations and to summer/fall oligotrophy with high SST and stratification. We speculate that strategies of strictly asymbiotic, facultatively symbiotic, and symbiotic species may

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Data Description

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Citation: Storz, D et al. (2009): Planktic foraminiferal flux and faunal composition of sediment trap L1_K276 in the northeastern Atlantic. doi:10.1594/PANGAEA.724325, *Supplement to: Storz, David; Schulz, Hartmut; Waniek, Joanna J; Schulz-Bull, Detlef; Kucera, Michal (2009): Seasonal and interannual variability of the planktic foraminiferal flux in the vicinity of the Azores Current. Deep Sea Research Part I: Oceanographic Research Papers*, **56**(1), 107-124, doi:10.1016/j.dsr.2008.08.009

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Project(s): [Paleoceanography at Tübingen University \(GeoTü\)](#) ↗

Coverage: *Latitude:* 30.000000 * *Longitude:* -22.000000

Date/Time Start: 2002-02-24T00:00:00 * *Date/Time End:* 2004-03-16T00:00:00

Event(s): [L1_K276](#) ↗ * *Latitude:* 30.000000 * *Longitude:* -22.000000 * *Date/Time Start:* 2002-02-24T00:00:00 * *Date/Time End:* 2004-04-01T00:00:00 * *Elevation:* -5300.0 m * *Location:* NE Atlantic - Azores Front ↗ * *Device:* Trap, sediment ↗ * *Comment:* Station used since 1980

License:  [Creative Commons Attribution 3.0 Unported](#)

Size: 6 datasets

Download Data

Download [ZIP](#) file containing all datasets as tab-delimited text (use the following character encoding: [ISO-8859-1: ISO Western \(PANGAEA default\)](#))

Datasets listed in this Collection

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- Play a key role in delivering data identification and citation services
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- Use shared infrastructure for registration, resolution, reporting
- Vote in the general assembly
- Contribute to working groups

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Work with a member

- Assign DOIs to your data
- Make your data easier to cite, find, and re-use
- Make it easier to track use of your data

Become an affiliate

- Be part of the community advocating for data citation
- Share practices
- Participate in general assembly and strategy meetings