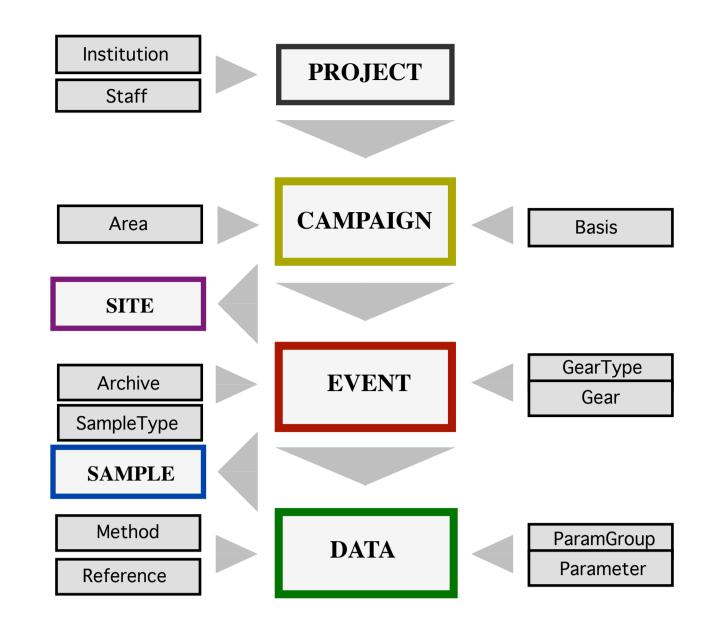




## an Information System for Georeferenced Data from Earth System Research

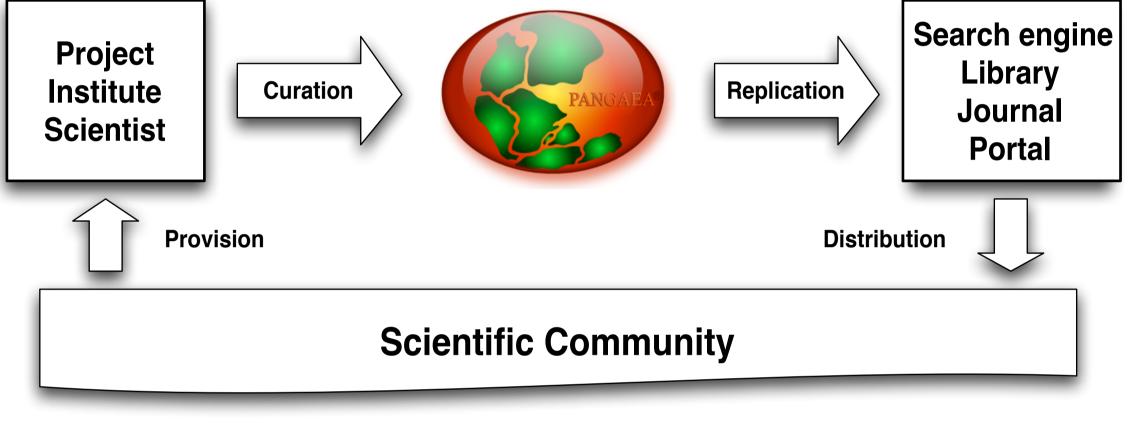


The information system PANGAEA - Publishing Network for Geoscientific and Environmental Data (http://www.pangaea.de) is operated as a long-term archive and publication unit for georeferenced data from Earth system research. The system provides the data in consistent standard formats in Open Access with search and access capabilities via Internet. Data are accompanied by a meta-description.

Data publishing:

PANGAEA is open to any individual scientist as well as research projects. The data can be stored as supplements related to publications or as citable stand-alone data collections. Each data set is published with a citation including a DOI (Digital Object Identifier) for reliable long-term availability. The data are presented according to OAI-PMH standards for harvesting and thus are also distributed via portals and can be found through search engines.

Citation: Reimann, C et al. (1998): Geochemical analysis of soil in the central Barents Regior doi:10.1594/PANGAEA.686641 Supplement to: Reimann, Clemens; Äyräs, M; Chekushin, V; Bogatyrev, I; Boy R; Finne, TE; Halleraker, JH; Jæger, Ø; Kashulina, G; Lehto, O; Niskavaara, H; Pavlov, VK; Räisänen, ML; Project Strand, T; Volden, T (1998): Environmental geochemical atlas of the central Barents region, NGU-GTK-CKE special publication, Geological Survey of Norway (NGU), Trondheim, ISBN 978-82-7385-176-5, 745 pp Institute Abstract: Preface by Rognvald Boyd & Reijo Salminen: This atlas is the culmination of one of the most comprehensive environmental geochemical studies ever undertaken on a regional scale. It covers some of the most polluted, and some of the most pristine areas in Europe. It provides data for Scientist many elements for which the media concerned have not previously been analysed on a large regional scale and demonstrates that many of these are part of the emission spectra from industries within the area covered. It casts light on many processes governing the distribution of elements in the biosphere, pedosphere and geosphere, questioning some established theories and confirming others. It represents both an end and a beginning, in that the data are now available for use in studies related to toxicological impacts on plants, animals and humans, remediation of polluted areas, the scientific basis for action levels, baseline assessments for new development projects and other fields. Coverage: West: 24.0498 \* East: 35.4177 \* South: 66.3930 \* North: 71.0948 Date/Time Start: 1992-01-01T00:00:00 \* Date/Time End: 1992-01-01T00:00:00 Event(s): Kola\_B-horizon \* Latitude: 71.1000 \* Longitude: 24.0000 \* Date/Time: 1992-01-01T00:00:00 \* Latitude 2: 66.4000 \* Longitude 2: 35.4000 \* Campaign: Kola Ecogeochemistry \* Device: Sampling by hand Kola\_C-horizon \* Latitude: 71.1000 \* Longitude: 24.0000 \* Date/Time: 1992-01-01T00:00:00 \* Latitude 2: 66.4000 \* Longitude 2: 35.4000 \* Campaign: Kola\_Ecogeochemistry \* Device: Sampling by hand Kola\_Humus \* Latitude: 71.1000 \* Longitude: 24.0000 \* Date/Time: 1992-01-01T00:00:00 \* Latitude 2: 66.4000 \* Longitude 2: 35.4000 \* Campaign: Kola\_Ecogeochemistry \* Device: Sampling by hand Kola\_Moss \* Latitude: 71.1000 \* Longitude: 24.0000 \* Date/Time: 1992-01-01T00:00:00 \* Latitude 2: 66.4000 \* Longitude 2: 35.4000 \* Location: Kola, Russia, Europe \* Campaign: Kola\_Ecogeochemistry \* Device: Sampling by hand Kola Topsoil \* Latitude: 71.1000 \* Longitude: 24.0000 \* Date/Time: 1992-01-01T00:00:00 \* Latitude 2: 66.4000 \* Longitude 2: 35.4000 \* Campaign: Kola\_Ecogeochemistry \* Device: Sampling by hand 6 datasets **Download Data** 



Workflow of data from the investigator to the archive and its distribution via Open Access to the **Scientific Community** 

## Sediment core images

Event(s):

Fielding, CR et al. (2001): Documentation of Citation: sediment core CRP-2A by box images/photos, doi:10.1594/PANGAEA.58401, In Supplement to: Fielding, Christopher R; **Thomson, MRA (1999):** Studies from the Cape Roberts Project, Ross Sea Antarctica, Initial Report on CRP-2/2A, Terra Antartica, 6(1/2), 173 pp, hdl:10013/epic.28290.d001

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- *Reference(s):* Fielding, Christopher R; Thomson, MRA (1999): Studies from the Cape Roberts Project, Ross Sea Antarctica, Initial Report on CRP-2/2A, Terra Antartica, 6(1/2), 173 pp, hdl:10013/epic.28290.d001
- **Cape Roberts Project (CRP)** Project(s)
- West: 163.7194 \* East: 163.7194 \* South: -77.0060 \* Coverage North: -77.0060
  - Minimum ORDINAL NUMBER: 1 \* Maximum ORDINAL NUMBER: 155
  - CRP-2A (14.2 km at 096° true from Cape Roberts) \* Latitude: -77.0060 \* Longitude: 163.7194 \* Elevation: -177.9 m \* Date/Time: 1998-10-16T07:30:00 \* Date/Time 2: 1998-11-25T14:20:00 \* Recovery: 624.0 m \* Location off Cape Roberts, Ross Sea, Antarctica \* Campaign. CRP-2 \* Basis: Sampling/drilling from ice \* Device: Core wireline system \* Comment: 921 m at 284° from CRP-1. Sea-ice thickness: 2.0 m (1 Oct) to 2.2 m (23 Nov). Sea riser embedded to 13.03 mbsf. Lateral ice movement: 9.87 m to east from 17 Oct to 23 Nov. HQ core to 199.31 mbsf. NQ core to 624.15 mbsf. 13.03 to 45.97 mbsf, 11.29 m (34%) partially following CRP-2. 45.07 to 624.15 mbsf, 548.67 m (95%) new hole. Deepest core-lithology: hard sandy siltstone. Deepest core-age: earliest Oligocene (ca. 33 Ma on diatoms, nannofossils and dinoflagellates)

Other version:	http://www.pangaea.de/PHP/Cores.php?B=CRP&C=CRP- 2A&format=JPG&ID=58401						
Comment: Parameter(s):	Images from core boxes; ordinal no is box no						
	Parameter	Short Name	Unit	Label	Principal Investigator	Method	Comment
	LATITUDE	Latitude					Geocode
	LONGITUDE	Longitude					Geocode
	ORDINAL NUMBER	No					Geocode
	Depth, bottom	Depth bot	m	CRP- 2A.1010	CRP Science Team		
	Depth, top	Depth top	m	CRP- 2A.1009	CRP Science Team		

CRP- CRP

CRP- CRP

2A.1012 Science

2A.1011 Science

Team

Team

Format:

Format:

TIFF

JPG

URL raw

## atasets listed in this Collectio

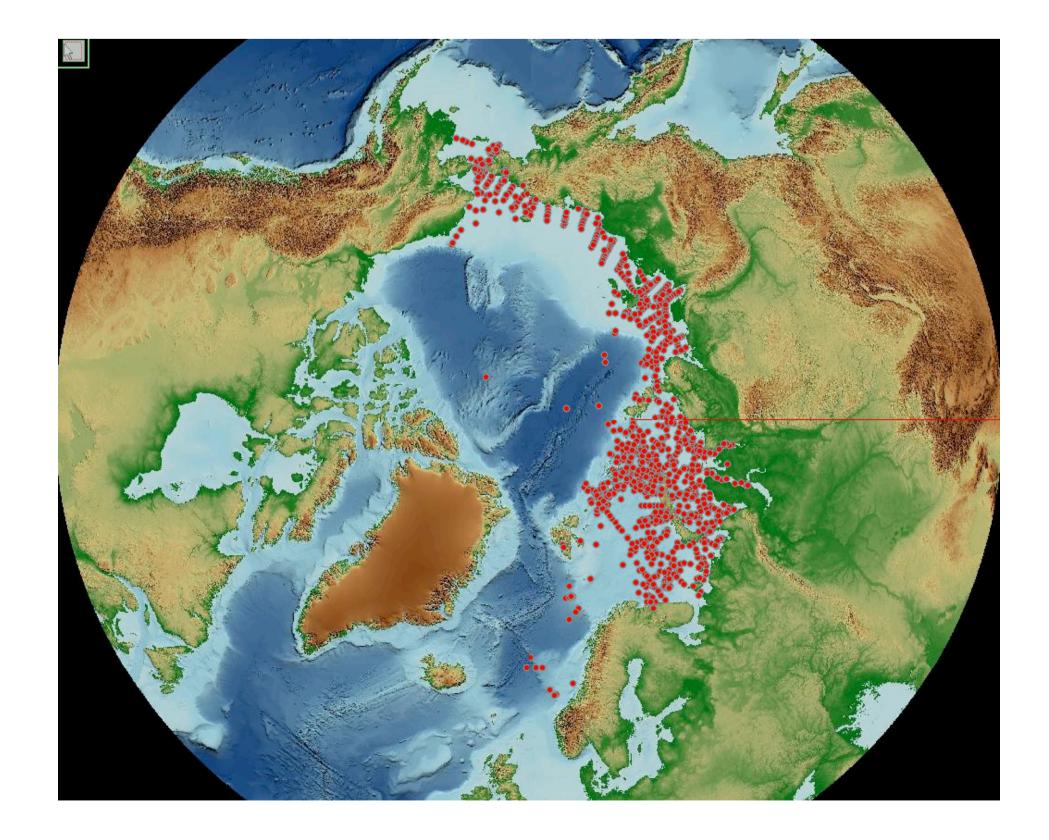
 Reimann, C (1998): Geochemistry of B-horizon/1, doi:10.1594/PANGAEA.56264 • Reimann, C (1998): Geochemistry of B-horizon/2, doi:10.1594/PANGAEA.56650 Reimann, C (1998): Geochemistry of C-horizon, doi:10.1594/PANGAEA.56227 • Reimann, C (1998): Geochemistry of Humus, doi:10.1594/PANGAEA.56279 • Reimann, C (1998): Geochemistry of Moss, doi:10.1594/PANGAEA.56306 • Reimann, C (1998): Geochemistry of Topsoil, doi:10.1594/PANGAEA.56246

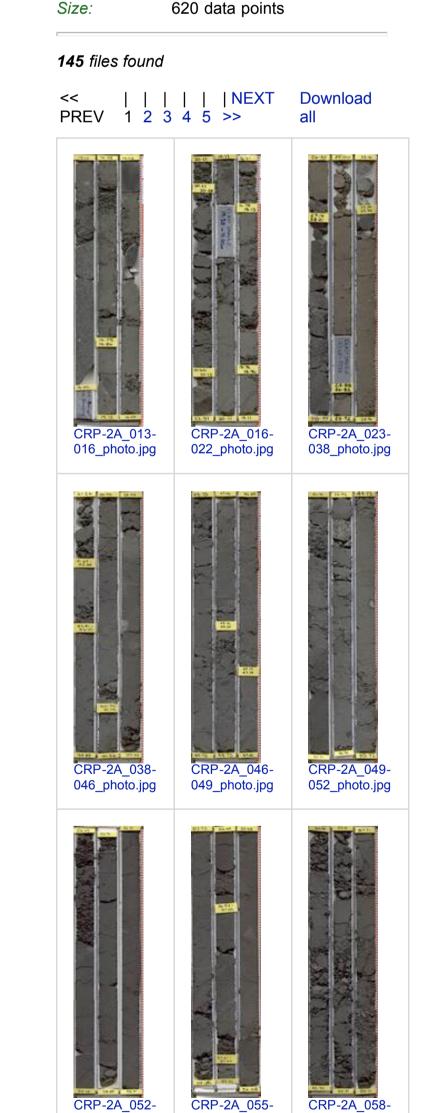
Download ZIP file containing all datasets as tab-delimited text (use the following character encoding: ISO-8859-1: ISO Western (PANGAEA default)

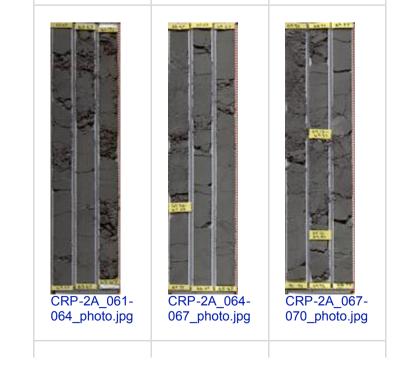
Example of a data supplement to a geochemical atlas consisting of a citation, abstract, georeference and six *child* data sets. The **DOI** ensures reliable long-term access.

## Project examples:

Examples of geological projects, served by PANGAEA, are ANDRILL (Antarctic Geological Drilling) and the European part of IODP (Integrated Ocean Drilling Program). Within the project ARCOD (Arctic Ocean Sediment Database) geological data from the Arctic are retrodigitized and made available to the international scientific community by means of the PANGAEA technology. The system can also be used to archive data supplements to publications.







061 photo.jpg

Universal

resource locator/link

to raw data

Universal

locator/link

to raw data

resource

Distribution of geological data in the Arctic, recovered from Russian archives through the ARCOD project. The result of a query can be viewed through a map server, due to the fact that all data in the system are fully georeferenced in time and space.

Data set example of a drilled sediment core. Images are presented as thumbnails; the full resolution can be downloaded by a click on a thumb or using the download all button.

Data status: In 2008 about 500,000 data sets from 10,000 references and 150 projects, consisting in total of 5 billion data points from 50,000 parameters are available via Pangaea.



Michael Diepenbroek (1), Hannes Grobe (2), Evgeny Gurvich (2) & Uwe Schindler (1) (1) MARUM Center for Marine Environmental Sciences (2) Alfred-Wegener-Institute for Polar and Marine Research data submissions are welcome to info@pangaea.de

