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Time Series Archiving –
The Data Library PANGAEA®

Stefanie Schumacher & Rainer Sieger

hdl:

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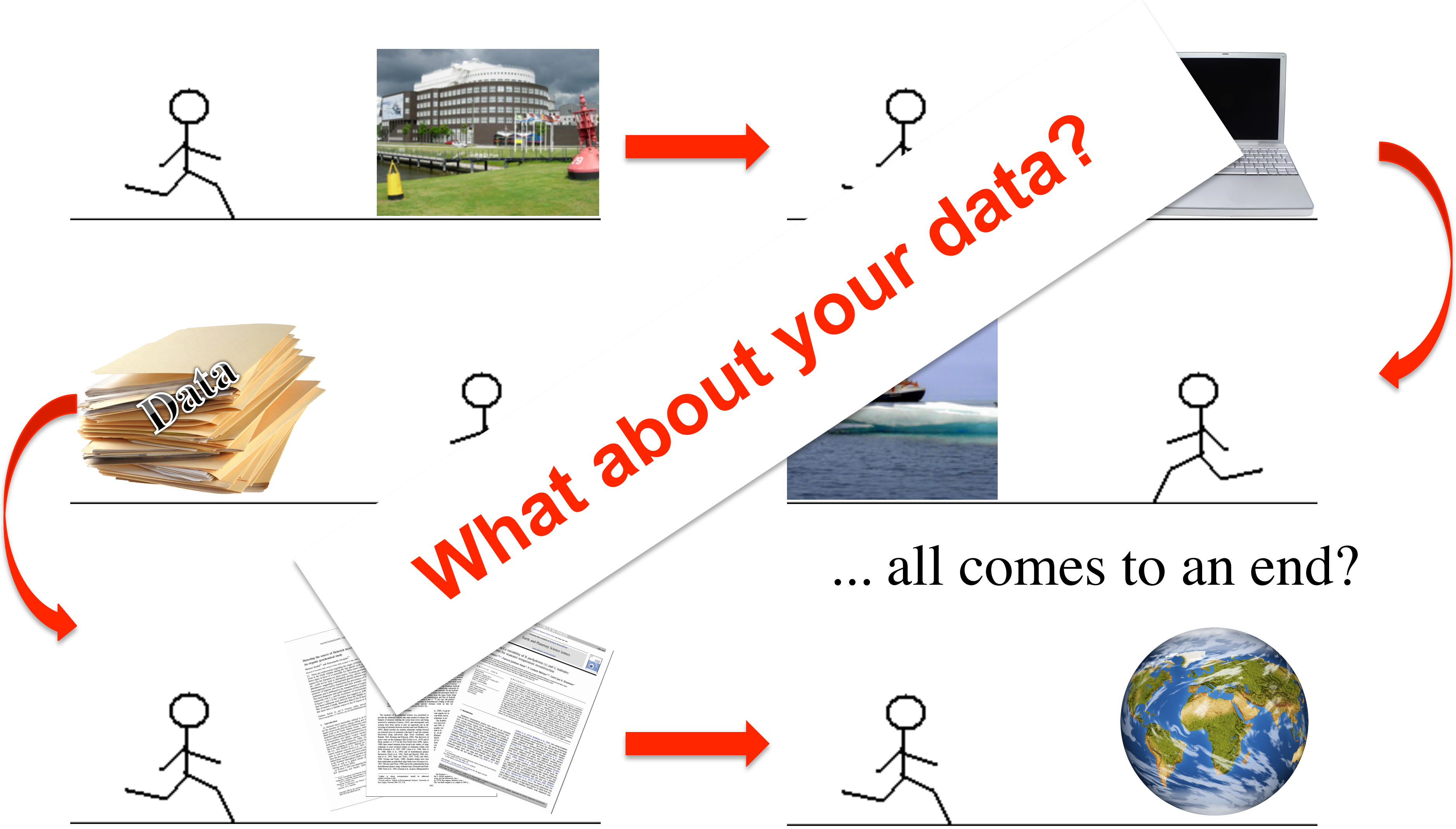
At the beginning ...

... of your study



Don‘t loose your data ...

SPIEGEL ONLINE WISSENSCHAFT

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PEINLICHE PANNE Schrift: – +

Nasa hat Mondlandungs-Videos verbummelt

Es klingt wie in einem schlechten Film: Die Kassetten mit den Bildern der ersten Mondlandung sind weg. Nasa-Mitarbeiter haben über ein Jahr nach den Videos gesucht - und sie nicht gefunden.

NASA lost tapes of first moon-landing

... archive the data

minimum period
of 10 years

open access

DFG

Empfehlungen der Kommission "Selbstkontrolle in der Wissenschaft"

Vorschläge zur Sicherung guter wissenschaftlicher Praxis
Januar 1998

Empfehlung 7

Primärdaten als Grundlagen für Veröffentlichungen sollen auf haltbaren und gesicherten Trägern in der Institution, wo sie entstanden sind, für zehn Jahre aufbewahrt werden.

European Science Foundation Policy Briefing

Good scientific practice in research and scholarship

December 2000 10

Data accumulation, handling and storage

36. Data are produced at all stages in experimental research and in scholarship. Data sets are an important resource, which enable later verification of scientific interpretation and conclusions. They may also be the starting point for further studies. It is vital, therefore, that all primary and secondary data are stored in a secure and accessible form.

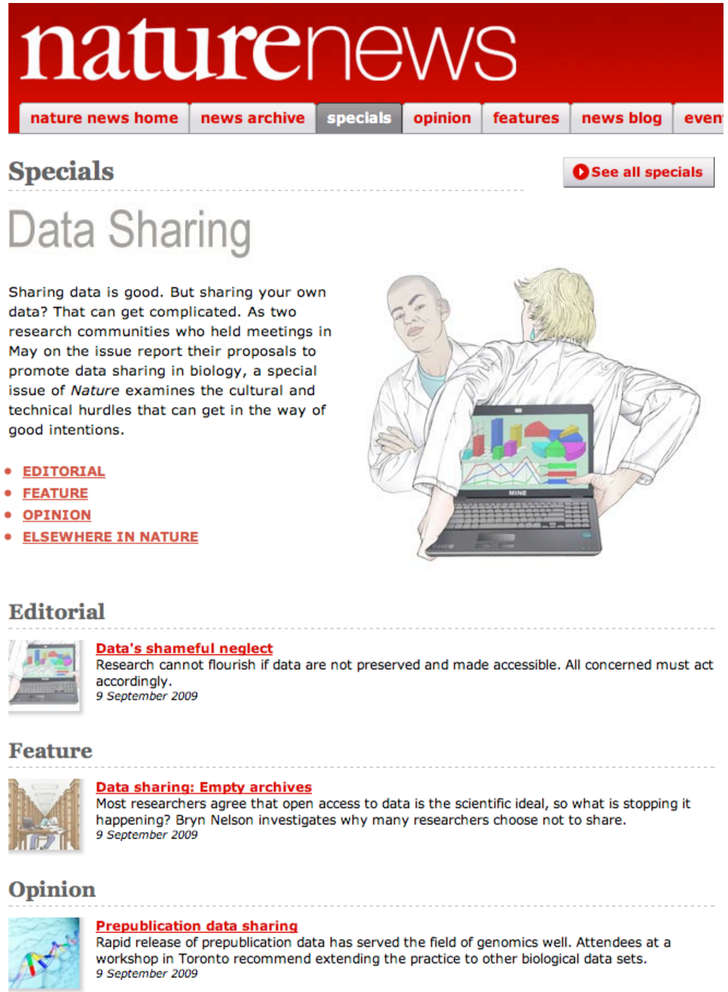
37. Institutions must pay particular attention to documenting and archiving original research and scholarship data. Several codes of good practice recommend a minimum period of 10 years, longer in the case of especially significant or sensitive data. National or regional discipline-based archives should be considered where there are practical or other problems in storing data at the institution where the research was conducted.

Data sharing – why?

Nature:

Vol 461, 10 September 2009

[doi:10.1038/461145a](doi:10.1038/461145a)



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Specials

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Data Sharing

Sharing data is good. But sharing your own data? That can get complicated. As two research communities who held meetings in May on the issue report their proposals to promote data sharing in biology, a special issue of *Nature* examines the cultural and technical hurdles that can get in the way of good intentions.

- EDITORIAL
- FEATURE
- OPINION
- ELSEWHERE IN NATURE

Editorial

Data's shameful neglect
Research cannot flourish if data are not preserved and made accessible. All concerned must act accordingly.
9 September 2009

Feature

Data sharing: Empty archives
Most researchers agree that open access to data is the scientific ideal, so what is stopping it happening? Bryn Nelson investigates why many researchers choose not to share.
9 September 2009

Opinion

Prepublication data sharing
Rapid release of prepublication data has served the field of genomics well. Attendees at a workshop in Toronto recommend extending the practice to other biological data sets.
9 September 2009

Data sharing – why?

Current Biology

Cell PRESS

Volume 24, Issue 1, 6 January 2014, Pages 94–97

Report

The Availability of Research Data Declines Rapidly with Article Age

Timothy H. Vines[1, 2], Arianne Y.K. Albert[3], Rose L. Andrew[1], Florence Débarre[1, 4], Dan G. Bock[1], Michelle T. Franklin[1, 5], Kimberly J. Gilbert[1], Jean-Sébastien Moore[1, 6], Sébastien Renaut[1], Diana J. Rennison[1]

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Table 1. Breakdown of Data Availability by Year of Publication

Year	No Working E-Mail	No Response to E-Mail	Response Did Not Give Status of Data	Data Lost	Data Exist, Unwilling to Share	Data Received	Data Extant (Unwilling to Share + Received)	Number of Papers
1991	9 (35%)	9 (35%)	2 (8%)	4 (15%)	1 (4%)	1 (4%)	2 (8%)	26
1993	14 (39%)	11 (31%)	3 (8%)	7 (19%)	0 (0%)	1 (3%)	1 (3%)	36
1995	11 (31%)	9 (26%)	0 (0%)	7 (20%)	2 (6%)	6 (17%)	8 (23%)	35
1997	11 (37%)	9 (30%)	1 (3%)	2 (7%)	3 (10%)	4 (13%)	7 (23%)	30
1999	19 (48%)	13 (32%)	1 (2%)	1 (2%)	0 (0%)	6 (15%)	6 (15%)	40
2001	13 (30%)	15 (35%)	3 (7%)	4 (9%)	0 (0%)	8 (19%)	8 (19%)	43
2003	9 (20%)	20 (43%)	4 (9%)	2 (4%)	0 (0%)	11 (24%)	11 (24%)	46
2005	11 (24%)	14 (31%)	6 (13%)	1 (2%)	0 (0%)	13 (29%)	13 (29%)	45
2007	12 (18%)	31 (47%)	2 (3%)	4 (6%)	1 (2%)	16 (24%)	17 (26%)	66
2009	9 (13%)	34 (49%)	3 (4%)	5 (7%)	6 (9%)	12 (17%)	18 (26%)	69
2011	13 (16%)	29 (36%)	8 (10%)	0 (0%)	7 (9%)	23 (29%)	30 (38%)	80
Totals	131 (25%)	194 (38%)	33 (6%)	37 (7%)	20 (4%)	101 (19%)	121 (23%)	516

Data are displayed as n (%); the percentages are calculated by rows.

Data archive - Journal

Marine Micropaleontology 74 (2010) 108–118

Contents lists available at ScienceDirect

Marine Micropaleontology

journal homepage: www.elsevier.com/locate/marmicro

Paleoceanographic evolution of North Pacific surface water off Japan during the past 150,000 years

Itaru Koizumi [a,*], Hirofumi Yamamoto [b]

[a] *Hokkaido University, Japan*
[b] *Japan Agency for Marine-Earth Science and Technology (JAMSTEC), Japan*

A R T I C L E I N F O

Article history:
Received 19 November 2009
Received in revised form 24 January 2010
Accepted 28 January 2010

Keywords:
Td′ (the ratio of warm- and cold-water diatoms)-derived annual SST (°C)
Wavelet analysis
Last interglacial period
Kuroshio–Kuroshio Extension
Oyashio
Tsugaru Warm Current
Earth's orbital parameters
El Niño–Southern Oscillation (ENSO)

A B S T R A C T

Hydrographic variability in the Mixed Water Region of the Northwest Pacific Ocean at latitudes 35°–40°N, between the Kuroshio Extension and Oyashio Front, causes complex upwelling, leading to large primary productivity and thus great fishery resources. We reconstructed the periodicity of the variability in North Pacific Intermediate Water upwelling and surface ocean hydrography based on the high-resolution analysis of diatom assemblages in seven cores, representing the last 150,000 years. We derived annual sea surface temperatures (SSTs) through a diatom-based proxy (*Td′*). The *Td′*-derived annual SSTs (°C) are controlled by orbital forcing, and show a reversed saw-tooth in southern cores, in contrast to a normal saw-tooth pattern in the northern cores. Oceanic diatom abundances along the northern margin of the Mixed Water Region are twice times as high as beneath the axis of the Kuroshio Extension, and fluctuated in a revised saw-tooth pattern with higher overall abundances interglacials. After the last deglaciation, annual SSTs declined markedly during Heinrich and Bond events in the northern North Atlantic, when ice-rafted detritus transported by icebergs was abundant. Wavelet analyses of the record of oceanic diatom abundances show significant variability at 2.0-kyr, 2 to 5.6-kyr and 3.2 to 9.6-kyr periods. Wavelet analyses of the annual SST records show significant periodicity at 1.4 to 2.6-kyr, 3.3 to 4.0-kyr, 7.2 to 12.8-kyr cycles.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at doi:10.1016/j.marmicro.2010.01.003.

Data archive - Journal

Access Online Article

Paleoceanographic evolution of North Pacific surface water off Japan during the past 150,000years Original Research Article

Marine Micropaleontology, Volume 74, Issues 3–4, April 2010, Pages 108-118

Itaru Koizumi, Hirofumi Yamamoto View Abstract

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Data archive - Journal

100 pages in a pdf file
converted from Excel sheet
before

How to get the data back into
Excel?

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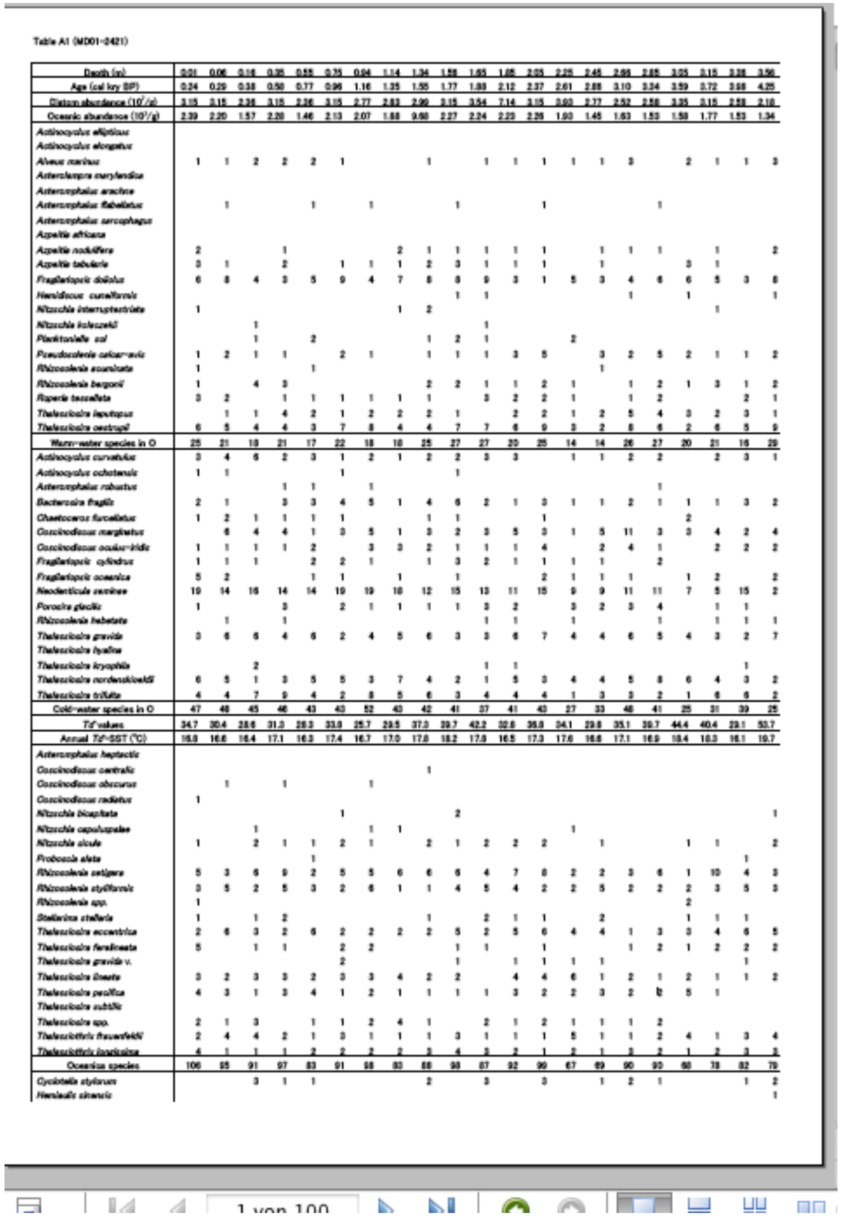
- e-mail addresse up-to-date?

Transfer the pdf to Excel?
- Loss of time for each scientist
  and incorrect transfer



Data bases/archives - NOAA

PALEOCEANOGRAPHY, VOL. 21, PA3015, doi:10.1029/2005PA001243

Subcentennial-scale climatic and hydrologic variability in the Gulf of Mexico during the early Holocene

Jenna M. LoDico,[1] Benjamin P. Flower,[1] and Terrence M. Quinn[1]

Received 11 November 2005; revised 20 April 2006; accepted 3 May 2006; published 29 September 2006.

[1] An early Holocene record from the Gulf of Mexico (GOM) reveals climatic and the interval from 10.5 to 7 thousand calendar years before present from paired anal foraminiferal calcite. The sea surface temperature record based on foraminiferal Mg and an overall ~1.5°C warming that appears to be similar to the September–Marc $\delta^{18}O$ of seawater in the GOM ($\delta^{18}O_{GOM}$) record contains six oscillations, including a be associated with the "8.2 ka climate event" or a broader climate anomaly. Fauna GOM cores exhibit similar changes, suggesting subcentennial-scale variability in t waters into the GOM. Overall, our results provide evidence that the subtropics were centennial-scale climatic and hydrologic variability during the early Holocene.

Citation: LoDico, J. M., B. P. Flower, and T. M. Quinn (2006), Subcentennial-scale climatic and hy Mexico during the early Holocene, *Paleoceanography, 21*, PA3015, doi:10.1029/2005PA001243.

[1] Auxiliary materials are available at www.ncdc.noaa.gov/paleo/paleo.html.

NOAA NATIONAL CLIMATIC DATA CENTER
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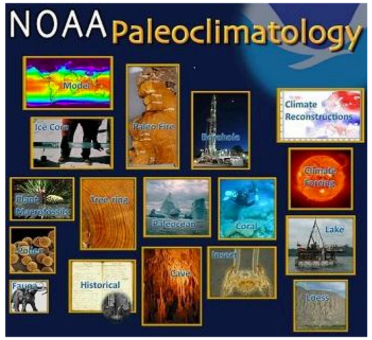
Paleoclimatology Data

Paleoclimatology data are derived from natural sources such as tree rings, ice cores, corals, and ocean and lake sediments. These proxy climate data extend the archive of weather and climate information hundreds to millions of years. The data include geophysical or biological measurement time series and some reconstructed climate variables such as temperature and precipitation.

NCDC provides the paleoclimatology data and information scientists need to understand natural climate variability and future climate change. We also operate the World Data Center for Paleoclimatology, which archives and distributes data contributed by scientists around the world.



Paleoclimatology data are derived from a wide variety of natural sources such as tree rings, ice cores, corals, and ocean and lake sediments.

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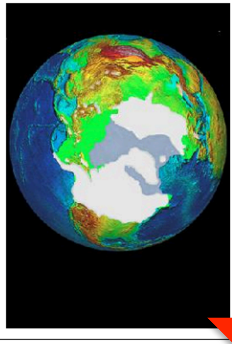

LoDico et al. 2006 Gulf of Mexico MD02-2550 Early Holocene Mg/Ca and d18O Data and SST Reconstruction

ORIGINATOR (CONTRIBUTORS): LoDico, J.M.; Flower, B.; Quinn, T.M.

ONLINE RESOURCE (When Citing Data): http://hurricane.ncdc.noaa.gov/pls/paleox/f?p=519:1:::::P1_STUDY_ID:6376

DOWNLOAD DATA:

Original Data and Full Metadata	lodico2006.txt

USE CONSTRAINTS: Please cite original publication, online resource and date accessed when using this data. If there is no publication information, please cite investigator, title, online resource and date accessed.

DISTRIBUTOR: National Climatic Data Center, NESDIS, NOAA, U.S. Department of Commerce

RESOURCE DESCRIPTION (data set id): noaa-recon-6376

KEYWORDS: earth science>paleoclimate>reconstructions

PARAMETERS:

SUMMARY/ABSTRACT: Records of past temperature, precipitation, and other climate variables derived from paleoclimate proxies. Parameter keywords describe what was measured in this data set. Additional summary information can be found in the abstracts of papers listed in the data set citations.

More Information: Reconstructions

CONTACT INFORMATION:

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325 Broadway, E/CC23
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http://www.ncdc.noaa.gov/paleo/
E-mail: bruce.a.bauer@noaa.gov
E-mail: paleo@noaa.gov
Phone: 303-497-6280 Fax: 303-497-6513

searchable in www?

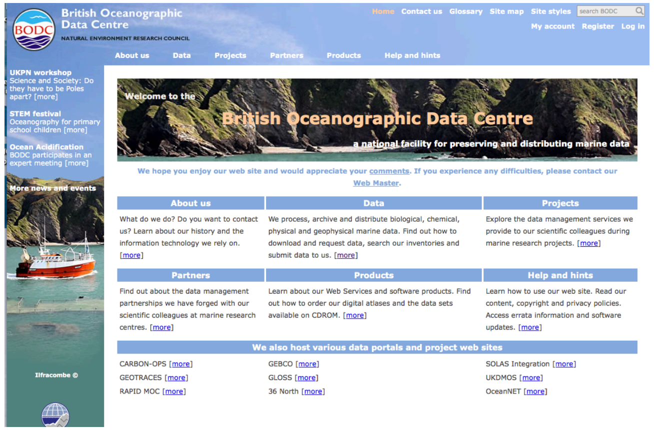
DATA:

Column 1: Depth (cm)
Column 2: thousand calendar years (B.P.)
Column 3: delta 13C G. ruber (white; 250-350 microns) (per mil VPDB)
Column 4: delta 18O G. ruber (white; 250-350 microns) (per mil VPDB)
Column 5: Mg/Ca (mmol/mol)
Column 6: Sea Surface Temperature (∞C) calculated from Mg/Ca as follows: Mg/Ca = 0.449exp(0.090*SST) (Anand et al., 2003)
Column 7: delta 18O seawater (per mil VSMOW) calculated as follows: SST = 14.9 - 4.8*(d18Oc-d18Osw) (Bemis et al., 1998)
Column 8: thousand calendar years (B.P.) for d18O Gulf of Mexico (GOM) record
Column 9: delta 18O seawater Gulf of Mexico (GOM) (per mil VSMOW) corrected for ice volume (Fairbanks, 1989; Bard et al., 1996) using 0.083â per 10 m (Adkins and Schrag, 2001).

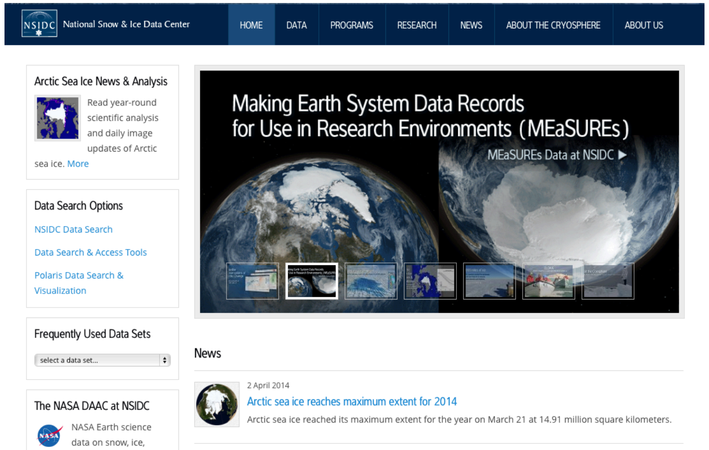
depth	Cal kyr	d13C	d18O	Mg/Ca	SST	d18Osw	Cal kyr	d18OGOM
190	7.02	0.81	-1.69	4.79	26.30	0.95	7.000	0.75
190.5	7.05	0.93	-1.57	4.84	26.41	1.10	7.025	0.87
191	7.07	0.81	-1.41	4.90	26.56	1.29	7.050	1.01
191.5	7.09	1.07	-1.39	4.80	26.32	1.26	7.075	1.17
192	7.11	1.03	-1.60	5.35	27.54	1.30	7.100	1.17
192.5	7.13	0.85	-1.66	4.81	26.35	0.99	7.125	0.97
193	7.16	0.94	-2.01	5.16	27.13	0.81	7.150	0.76
193.5	7.18	0.62	-1.81	4.87	26.48	0.87	7.175	0.75
194	7.20	0.84	-1.58	4.70	26.09	1.02	7.200	0.87
194.5	7.22	0.93	-1.74	4.84	26.42	0.93	7.225	0.84
195	7.25	0.76	-1.69	4.91	26.59	1.01	7.250	0.86
195.5	7.27	1.02	-1.81	4.75	26.21	0.82	7.275	0.71
196.5	7.31	0.79	-1.90	4.84	26.41	0.77	7.300	0.67
197	7.33	0.95	-1.45	5.03	26.84	1.31	7.325	1.02
197.5	7.36	0.99	-1.76	5.02	26.82	1.00	7.350	0.99
198	7.38	0.90	-1.61	5.28	27.39	1.26	7.375	1.04
198.5	7.40	0.91	-1.88	5.08	26.95	0.90	7.400	0.83
199	7.42	0.90	-1.79	4.78	26.28	0.85	7.425	0.87
199.5	7.45	0.66	-1.52	5.66	28.16	1.51	7.450	1.25
200	7.47	1.07	-1.71	5.07	26.92	1.07	7.475	0.98
200.5	7.49	0.51	-1.78	5.25	27.32	1.08	7.500	1.21
201	7.51	0.45	-1.35	5.46	27.75	1.59	7.525	1.16

Data base

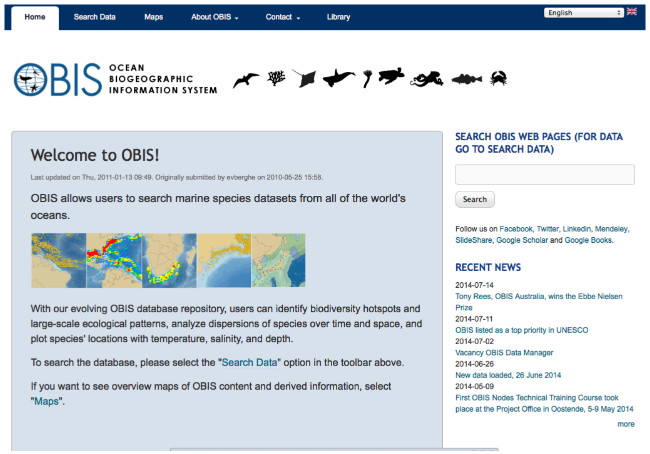
Oceanography



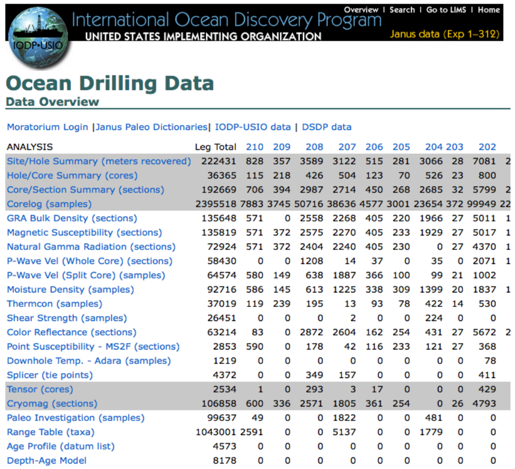
Snow & Ice



Biogeography



Ocean Drilling - Geology



Ocean Drilling Data

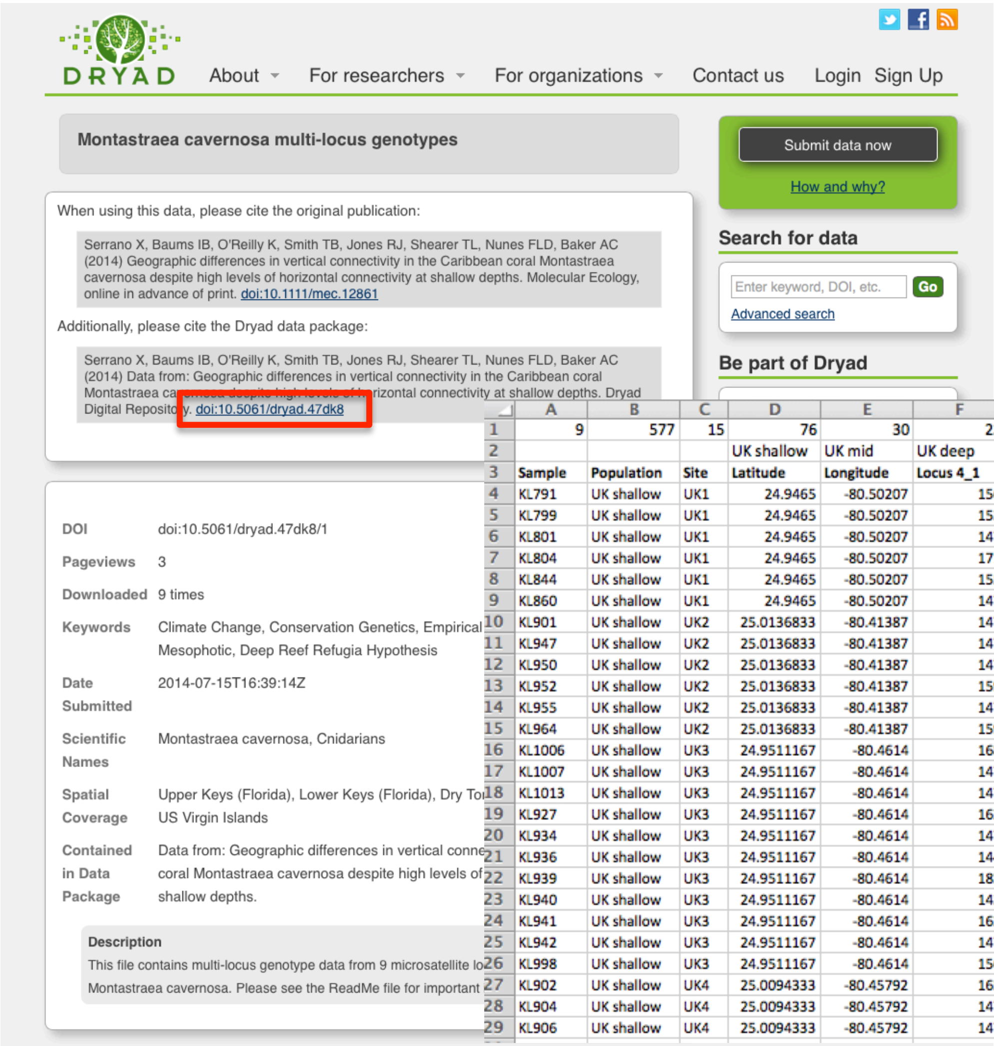
Data Overview

Moratorium Login |Janus Paleo Dictionaries| IODP-USIO data | DSDP data

ANALYSIS	Leg Total	210	209	208	207	206	205	204	203	202	
Site/Hole Summary (meters recovered)	222431	828	357	3589	3122	515	281	3066	28	7081	2
Hole/Core Summary (cores)	36365	115	218	426	504	123	70	526	23	800	
Core/Section Summary (sections)	192669	706	394	2987	2714	450	268	2685	32	5799	2
Corelog (samples)	2395518	7883	3745	50716	38636	4577	3001	23654	372	99949	22
GRA Bulk Density (sections)	135648	571	0	2558	2268	405	220	1966	27	5011	1
Magnetic Susceptibility (sections)	135819	571	372	2575	2270	405	233	1929	27	5017	1
Natural Gamma Radiation (sections)	72924	571	372	2404	2240	405	230	0	27	4370	1
P-Wave Vel (Whole Core) (sections)	58430	0	0	1208	14	37	0	35	0	2071	1
P-Wave Vel (Split Core) (samples)	64574	580	149	638	1887	366	100	99	21	1002	
Moisture Density (samples)	92716	586	145	613	1225	338	309	1399	20	1837	1
Thermcon (samples)	37019	119	239	195	13	93	78	422	14	530	
Shear Strength (samples)	26451	0	0	0	2	0	0	224	0	0	
Color Reflectance (sections)	63214	83	0	2872	2604	162	254	431	27	5672	2
Point Susceptibility - MS2F (sections)	2853	590	0	178	42	116	233	121	27	368	
Downhole Temp. - Adara (samples)	1219	0	0	0	0	0	0	0	0	78	
Splicer (tie points)	4372	0	0	349	157	0	0	0	0	411	
Tensor (cores)	2534	1	0	293	3	17	0	0	0	429	
Cryomag (sections)	106858	600	336	2571	1805	361	254	0	26	4793	
Paleo Investigation (samples)	99637	49	0	0	1822	0	0	481	0	0	
Range Table (taxa)	1043001	2591	0	0	5137	0	0	1779	0	0	
Age Profile (datum list)	4573	0	0	0	0	0	0	0	0	0	
Depth-Age Model	8178	0	0	0	0	0	0	0	0	0	

HELMHOLTZ GEMEINSCHAFT

Data repository



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	9	577	15	76	30	23	27	39	30	39	31	43	48	43	45
2				UK shallow	UK mid	UK deep	LK shallow	LK mid	LK deep	DT shallow	DT mid	DT deep	BDA shallow	BDA mid	BDA deep
3	**Sample**	**Population**	**Site**	**Latitude**	**Longitude**	**Locus 4_1**	**Locus 4_2**	**Locus 18_1**	**Locus 18_2**	**Locus 29_1**	**Locus 29_2**	**Locus 41_1**	**Locus 41_2**	**Locus 46_1**	**Locus 46_2**
4	KL791	UK shallow	UK1	24.9465	-80.50207	156	197	230	230	171	171	392	404	133	139
5	KL799	UK shallow	UK1	24.9465	-80.50207	153	171	233	239	155	159	408	412	133	133
6	KL801	UK shallow	UK1	24.9465	-80.50207	147	180	221	230	171	175	392	404	133	139
7	KL804	UK shallow	UK1	24.9465	-80.50207	171	180	221	224	155	171	396	404	133	133
8	KL844	UK shallow	UK1	24.9465	-80.50207	155	197	230	230	171	171	392	404	133	139
9	KL860	UK shallow	UK1	24.9465	-80.50207	147	162	233	242	171	175	0	0	133	139
10	KL901	UK shallow	UK2	25.0136833	-80.41387	147	147	227	236	175	175	404	408	133	133
11	KL947	UK shallow	UK2	25.0136833	-80.41387	147	162	218	221	167	171	392	404	139	139
12	KL950	UK shallow	UK2	25.0136833	-80.41387	147	171	230	236	155	167	404	404	133	133
13	KL952	UK shallow	UK2	25.0136833	-80.41387	159	180	227	230	171	171	408	408	133	145
14	KL955	UK shallow	UK2	25.0136833	-80.41387	147	153	224	227	155	183	404	404	133	139
15	KL964	UK shallow	UK2	25.0136833	-80.41387	159	177	227	230	171	171	408	408	133	145
16	KL1006	UK shallow	UK3	24.9511167	-80.4614	168	174	230	236	159	171	392	404	133	139
17	KL1007	UK shallow	UK3	24.9511167	-80.4614	147	159	221	227	167	171	412	412	133	139
18	KL1013	UK shallow	UK3	24.9511167	-80.4614	147	174	221	224	155	175	392	412	139	139
19	KL927	UK shallow	UK3	24.9511167	-80.4614	162	171	230	233	159	171	392	404	133	133
20	KL934	UK shallow	UK3	24.9511167	-80.4614	147	171	233	239	167	175	392	392	133	133
21	KL936	UK shallow	UK3	24.9511167	-80.4614	144	147	221	233	155	175	400	408	0	0
22	KL939	UK shallow	UK3	24.9511167	-80.4614	183	183	224	230	167	171	408	408	133	133
23	KL940	UK shallow	UK3	24.9511167	-80.4614	143	147	230	242	159	171	408	420	133	133
24	KL941	UK shallow	UK3	24.9511167	-80.4614	162	177	221	230	167	175	396	408	133	145
25	KL942	UK shallow	UK3	24.9511167	-80.4614	147	165	236	245	155	175	396	408	133	133
26	KL998	UK shallow	UK3	24.9511167	-80.4614	156	192	227	230	171	179	400	412	133	139
27	KL902	UK shallow	UK4	25.0094333	-80.45792	165	189	227	239	171	175	396	408	133	139
28	KL904	UK shallow	UK4	25.0094333	-80.45792	147	159	224	233	171	171	392	404	133	139
29	KL906	UK shallow	UK4	25.0094333	-80.45792	147	201	227	227	159	175	392	408	139	139

Data citation with doi

unsearchable in www

Digital Object Identifier - DOI

doi:10.1016/S0098-3004(02)00039-0

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Computers & Geosciences

Volume 28, Issue 10, December 2002, Pages 1201–1210

Shareware and freeware in the Geosciences II. A special issue in honour of John Butler

PANGAEA—an information system for environmental sciences

Michael Diepenbroek[a], Hannes Grobe[b], Manfred Reinke[b], Uwe Schindler[c], Reiner Schlitzer[b], Rainer Sieger[b], Gerold Wefer[a]

[a] Center for Marine Environmental Sciences (MARUM), University Bremen, Bremen 28334, Germany

[b] Alfred Wegener Institute for Polar and Marine Research, Bremerhaven 27515, Germany

[c] Physics Department, University of Erlangen-Nuremberg, Erlangen 91058, Germany

http://dx.doi.org/10.1016/S0098-3004(02)00039-0, How to Cite or Link Using DOI

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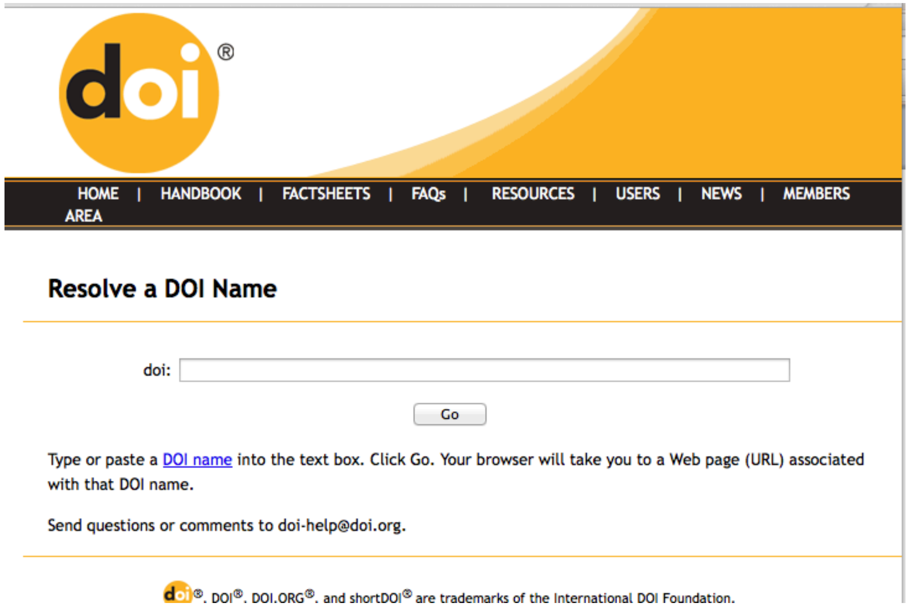

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Pangaea is an open access **data library** for earth system research. Data are stored georeferenced in space and time in a relational database and a tape archive.

The data content is accessible on the internet via a search engine, a data warehouse and web services.

The system is open to any scientist or project to archive and publish data.

PANGAEA hosts

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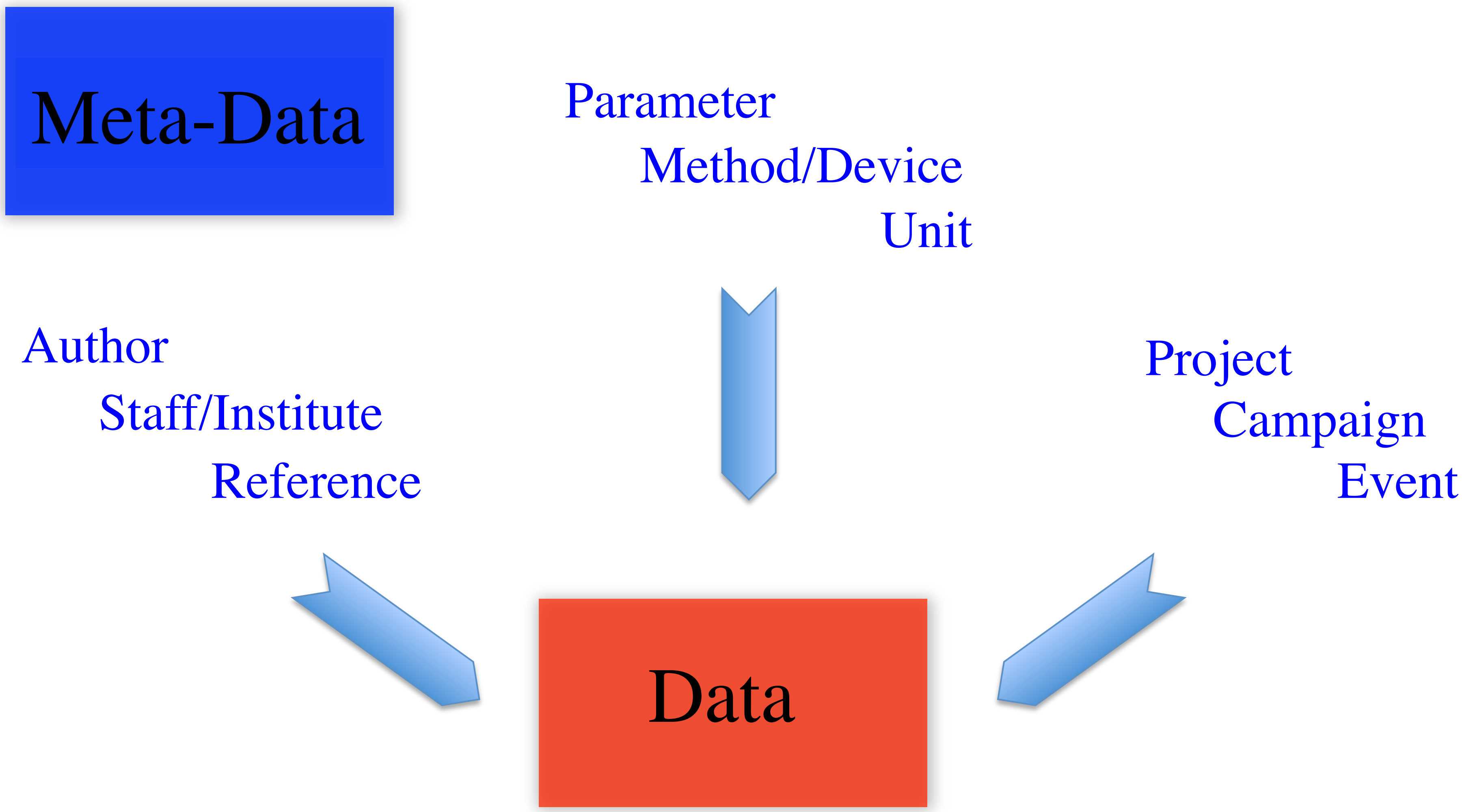
HELMHOLTZ-ZENTRUM FÜR POLAR-
UND MEERESFORSCHUNG

marum
Center for Marine
Environmental Sciences

Both institutions have committed to long-term operate PANGAEA

Data model



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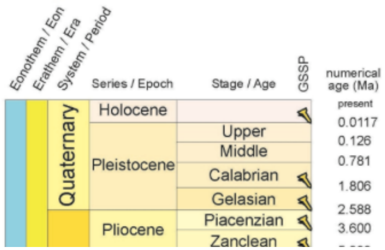
Data model

where?

Latitude/Longitude

when?

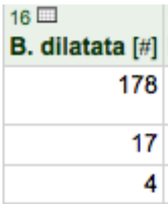


Date/Time or *geol. Age*

what?

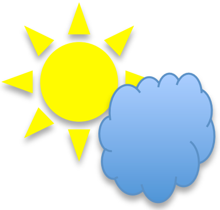
Parameter [unit]

numerical



text

object



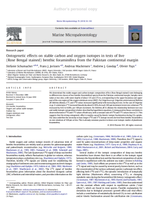
Air

Ice

Water

Sediment

who?



Investigator/Reference

how?

Method

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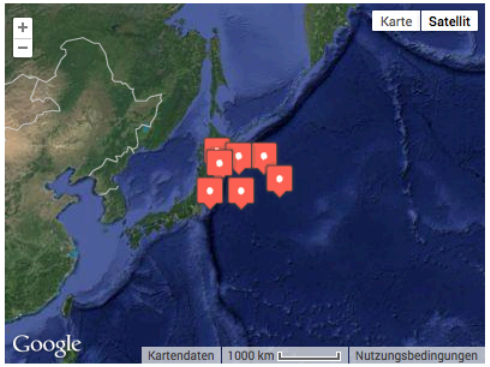
Data Description

Show Map | Google Earth | RIS | BibTeX



Citation: Koizumi, I; Yamamoto, H (2010): Vertical distribution of diatoms in North Pacific sediments. doi:10.1594/PANGAEA.776366,
Supplement to: **Koizumi, Itaru; Yamamoto, Hirofumi (2010):** Paleoceanographic evolution of North Pacific surface water off Japan during the past 150,000 years. *Marine Micropaleontology*, **74(3-4)**, 108-118, doi:10.1016/j.marmicro.2010.01.003

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Project(s): **Ocean Drilling Program** (ODP)

Coverage: *Median Latitude:* 38.477916 * *Median Longitude:* 146.055987 * *South-bound Latitude:* 36.000000 * *West-bound Longitude:* 141.780000 * *North-bound Latitude:* 40.560000 * *East-bound Longitude:* 152.000000

Minimum Age: 0.000 ka BP * *Maximum Age:* 152.580 ka BP

Event(s): **186-1150A** * *Latitude:* 39.181910 * *Longitude:* 143.331910 * *Date/Time Start:* 1999-06-22T18:30:00 * *Date/Time End:* 1999-06-26T22:15:00 * *Elevation:* -2680.8 m * *Recovery:* 566.40 m * *Penetration:* 722.60 m * *Location:* North Pacific Ocean * *Campaign:* Leg186 * *Basis:* Joides Resolution * *Device:* Drilling * *Comment:* 76 cores; 722.6 m cored; 0 m drilled; 78.4 % recovery

MD01-2421 (MD012421) * *Latitude:* 36.023500 * *Longitude:* 141.780000 * *Date/Time:* 2001-06-16T04:33:00 * *Elevation:* -2286.0 m * *Recovery:* 45.84 m * *Location:* Japan Trench * *Campaign:* MD122 (IMAGES VII - WEPAMA) * *Basis:* Marion Dufresne * *Device:* Giant piston corer

MR00-05-2PC * *Latitude:* 40.000000 * *Longitude:* 146.000000 * *Elevation:* -5177.0 m * *Location:* Northwest Pacific * *Device:* Piston corer

Size: 7 datasets

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Datasets listed in this Collection

1. **Koizumi, I; Yamamoto, H (2010):** (Table A1) Diatom abundance in sediment core MD01-2421. doi:10.1594/PANGAEA.775547
2. **Koizumi, I; Yamamoto, H (2010):** (Table A2) Diatom abundance in sediment core MR02-03-2. doi:10.1594/PANGAEA.776118

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Marine Micropaleontology

Volume 74, Issues 3–4, April 2010, Pages 108–118

Paleoceanographic evolution of North Pacific surface water off Japan during the past 150,000 years

Itaru Koizumi[a], Hirofumi Yamamoto[b]

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DOI: 10.1016/j.marmicro.2010.01.003

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Abstract

Hydrographic variability in the Mixed Water Region of the Northwest Pacific Ocean at latitudes 35°–40°N, between the Kuroshio Extension and Oyashio Front, causes complex upwelling, leading to large primary productivity and thus great fishery resources. We reconstructed the periodicity of the variability in North Pacific Intermediate Water upwelling and surface ocean hydrography based on the high-resolution analysis of diatom assemblages in seven cores, representing the last 150,000 years. We derived annual sea surface temperatures (SSTs) through a diatom-based proxy (*Td'*). The *Td'*-derived annual SSTs (°C) are controlled by orbital forcing, and show a reversed saw-tooth in southern cores, in contrast to a normal saw-tooth pattern in the northern cores. Oceanic diatom abundances along the northern margin of the Mixed Water Region are twice times as high as beneath the axis of the Kuroshio Extension, and fluctuated in a revised saw-tooth pattern with higher overall abundances interglacials. After the last deglaciation, annual SSTs declined markedly during Heinrich and Bond events in the northern North Atlantic, when ice-rafted detritus transported by icebergs was abundant. Wavelet analyses of the record of oceanic diatom abundances show significant variability at 2.0-kyr, 2 to 5.6-kyr and 3.2 to 9.6-kyr periods. Wavelet analyses of the annual SST records show significant periodicity at 1.4 to 2.6-kyr, 3.3 to 4.0-kyr, 7.2 to 12.8-kyr cycles.

Keywords

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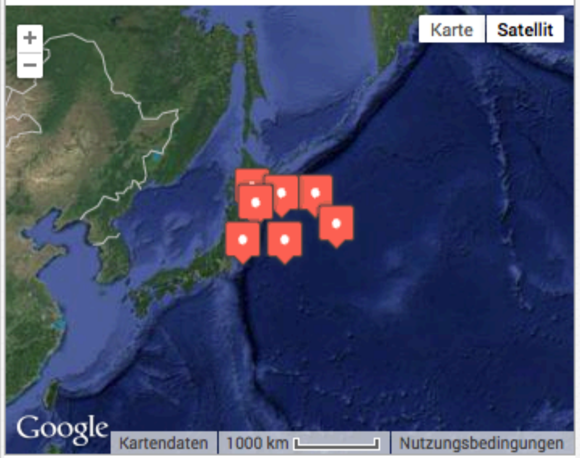

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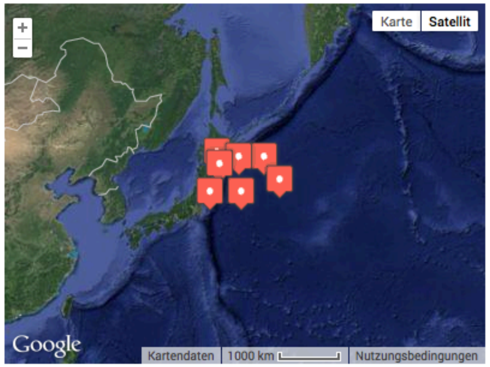

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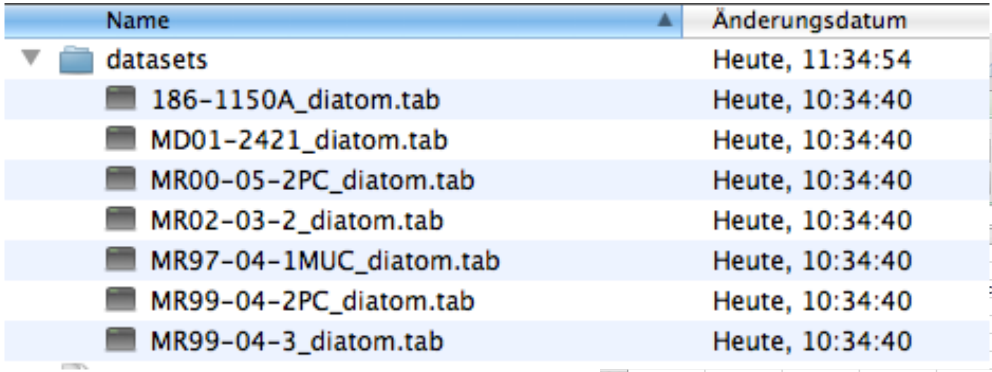
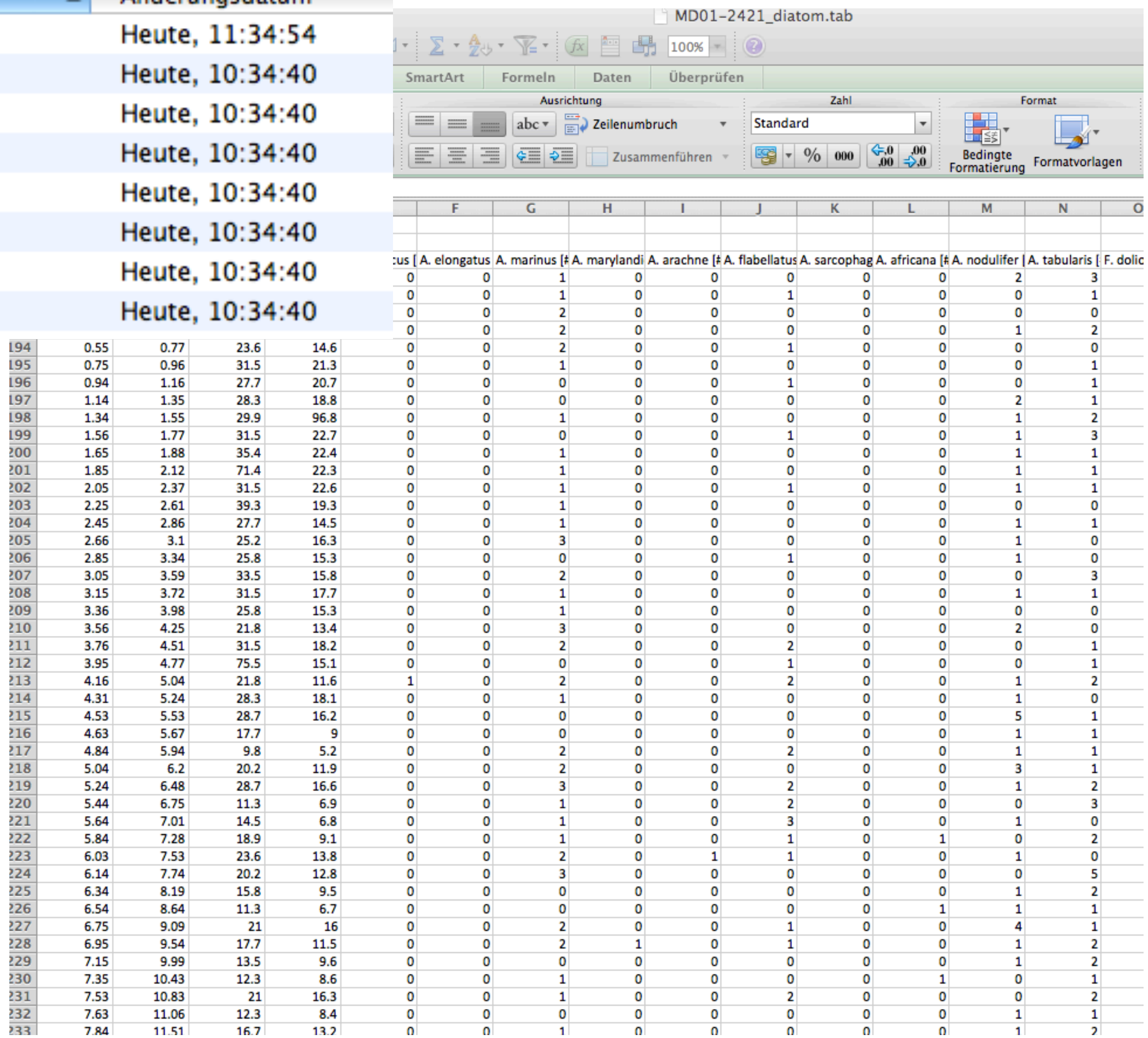
Data in PANGAEA





					E	F	G	H	I	J	K	L	M	N	O
					cus [	A. elongatus	A. marinus [#	A. marylandi	A. arachne [#	A. flabellatus	A. sarcophag	A. africana [#	A. nodulifer [	A. tabularis [	F. dolic
					0	0	1	0	0	0	0	0	2	3	
					0	0	1	0	0	1	0	0	0	1	
					0	0	2	0	0	0	0	0	0	0	
					0	0	2	0	0	0	0	0	1	2	
194	0.55	0.77	23.6	14.6	0	0	2	0	0	1	0	0	0	0	
195	0.75	0.96	31.5	21.3	0	0	1	0	0	0	0	0	0	1	
196	0.94	1.16	27.7	20.7	0	0	0	0	0	1	0	0	0	1	
197	1.14	1.35	28.3	18.8	0	0	0	0	0	0	0	0	2	1	
198	1.34	1.55	29.9	96.8	0	0	1	0	0	0	0	0	1	2	
199	1.56	1.77	31.5	22.7	0	0	0	0	0	1	0	0	1	3	
200	1.65	1.88	35.4	22.4	0	0	1	0	0	0	0	0	1	1	
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202	2.05	2.37	31.5	22.6	0	0	1	0	0	1	0	0	1	1	
203	2.25	2.61	39.3	19.3	0	0	1	0	0	0	0	0	0	0	
204	2.45	2.86	27.7	14.5	0	0	1	0	0	0	0	0	1	1	
205	2.66	3.1	25.2	16.3	0	0	3	0	0	0	0	0	1	0	
206	2.85	3.34	25.8	15.3	0	0	0	0	0	1	0	0	1	0	
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212	3.95	4.77	75.5	15.1	0	0	0	0	0	1	0	0	0	1	
213	4.16	5.04	21.8	11.6	1	0	2	0	0	2	0	0	1	2	
214	4.31	5.24	28.3	18.1	0	0	1	0	0	0	0	0	1	0	
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217	4.84	5.94	9.8	5.2	0	0	2	0	0	2	0	0	1	1	
218	5.04	6.2	20.2	11.9	0	0	2	0	0	0	0	0	3	1	
219	5.24	6.48	28.7	16.6	0	0	3	0	0	2	0	0	1	2	
220	5.44	6.75	11.3	6.9	0	0	1	0	0	2	0	0	0	3	
221	5.64	7.01	14.5	6.8	0	0	1	0	0	3	0	0	1	0	
222	5.84	7.28	18.9	9.1	0	0	1	0	0	1	0	1	0	2	
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225	6.34	8.19	15.8	9.5	0	0	0	0	0	0	0	0	1	2	
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227	6.75	9.09	21	16	0	0	2	0	0	1	0	0	4	1	
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230	7.35	10.43	12.3	8.6	0	0	1	0	0	0	0	1	0	1	
231	7.53	10.83	21	16.3	0	0	1	0	0	2	0	0	0	2	
232	7.63	11.06	12.3	8.4	0	0	0	0	0	0	0	0	1	1	
233	7.84	11.51	16.7	13.2	0	0	1	0	0	0	0	0	1	2	

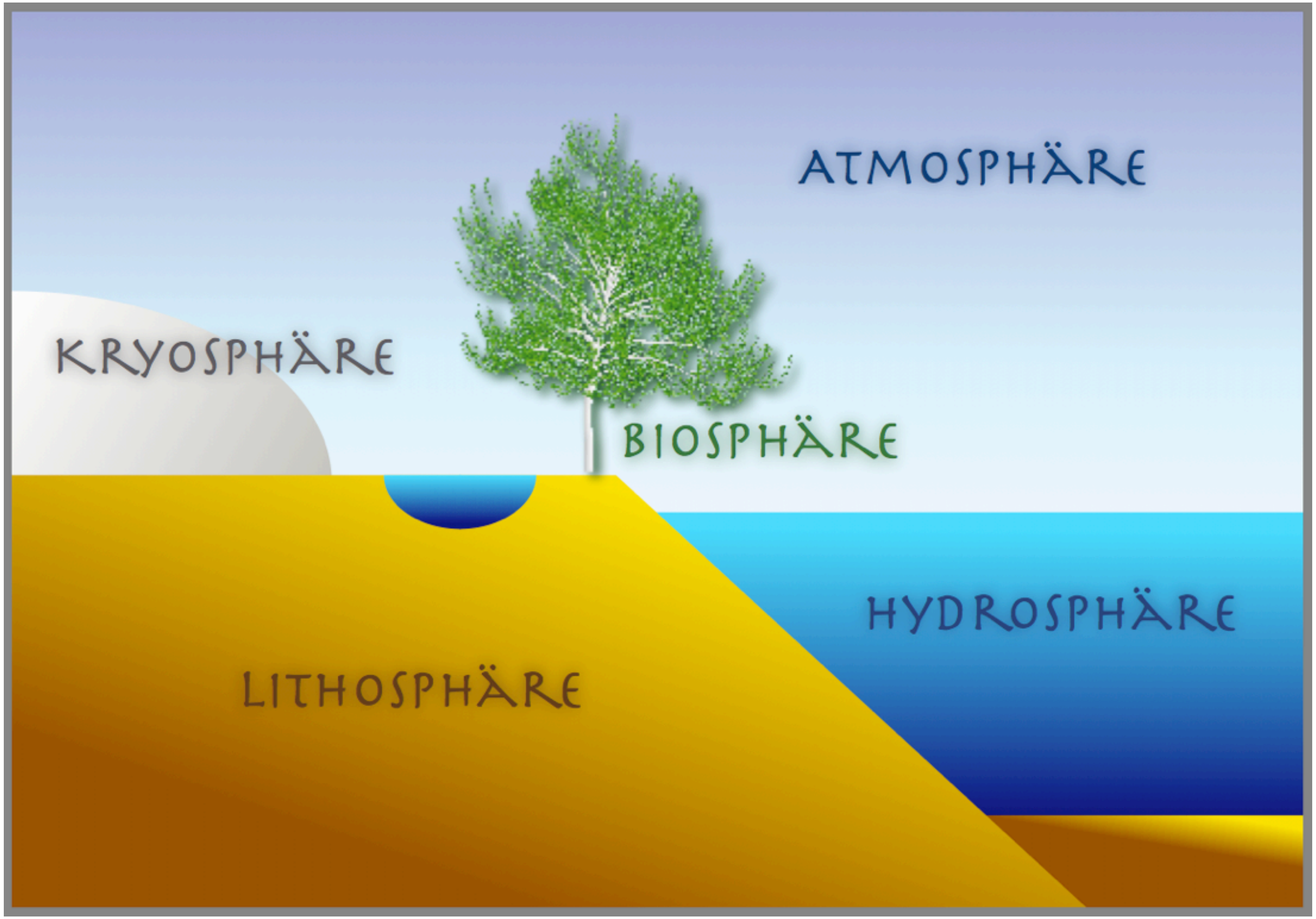
easy download and usage in various applications

What kind of data can I found -

what kind of data can be published/archived

in PANGAEA

Data variety



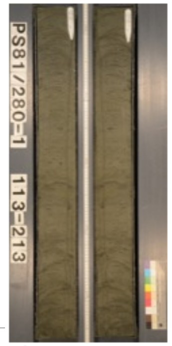
Major Projects

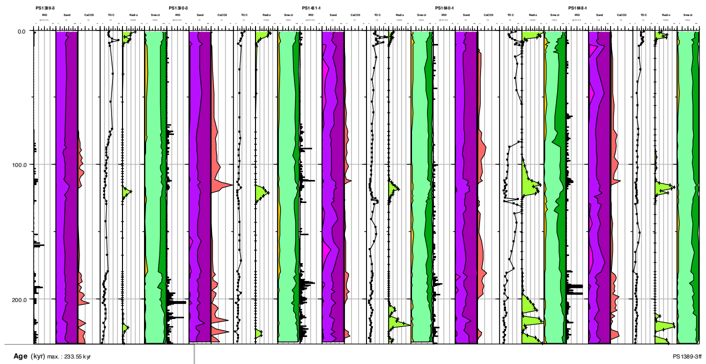
International	EU	National
BSRN Radiation	Epica Ice cores	HISTRA Tree rings
IODP	HYPOX Oceanography	GENUS
Marine geology ANDRILL	PAGE21 Permafrost	Hausgarten (AWI) Bio-Diversity
IMCOST	MedSeA	MMT Mammal Tracking
OC-ICC Ocean acidification	HERMES/ HERMIONE Marine environment	DFG/BMBF

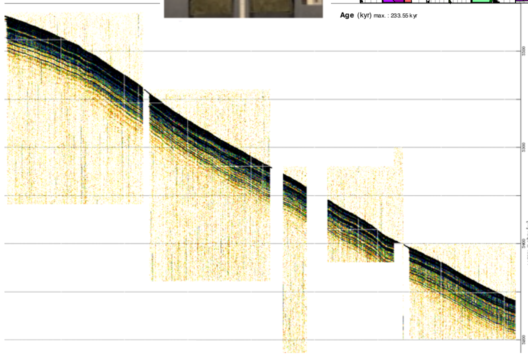
Examples

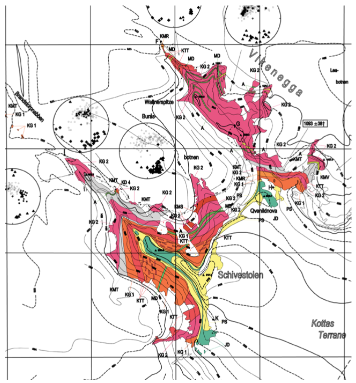
Geoscientific Research

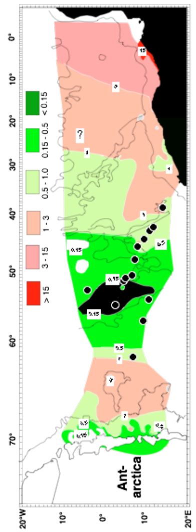
- Sediment cores
- Seismic profile
- Faunal distribution
- Geological map







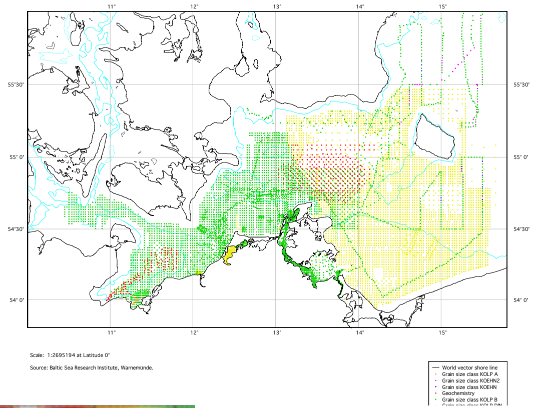




Examples

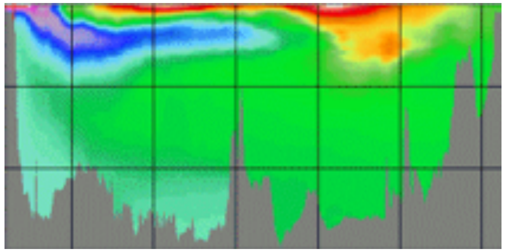
Environmental Research

❖ Images

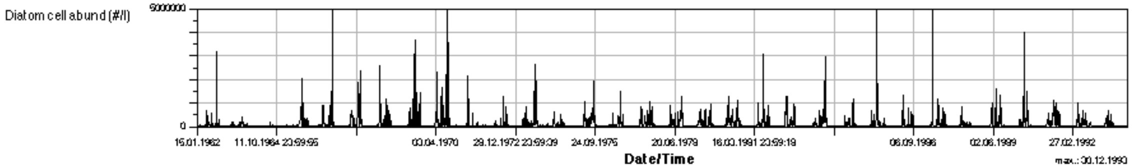


❖ Distributed samples

❖ Hydrographic profiles

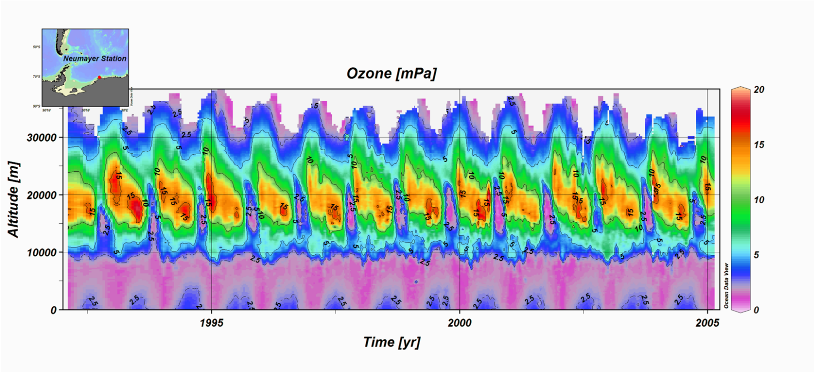


❖ Times Series

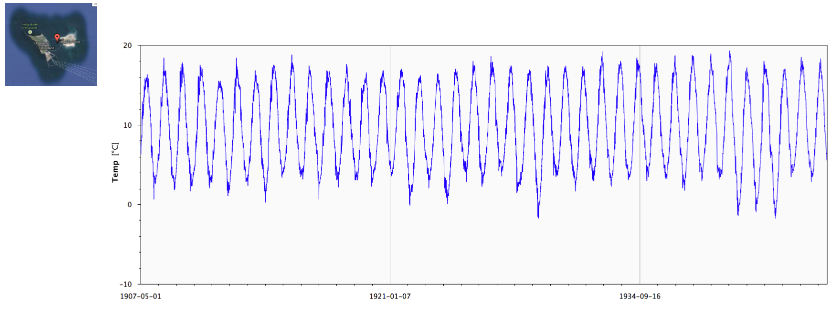


Examples

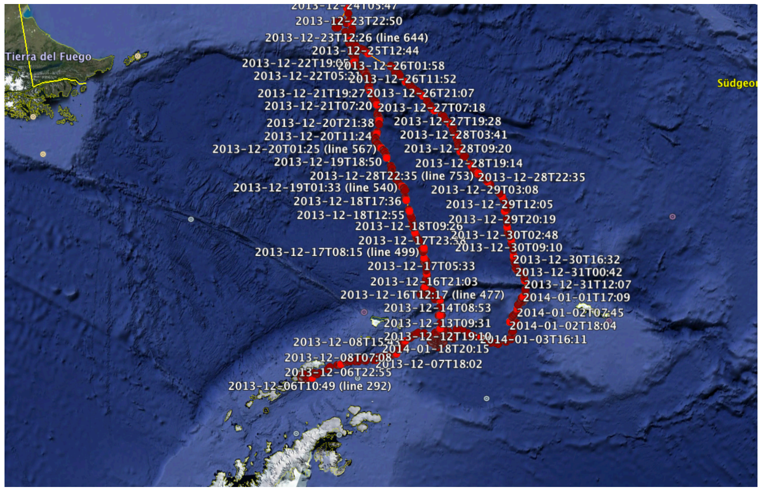
Time Series



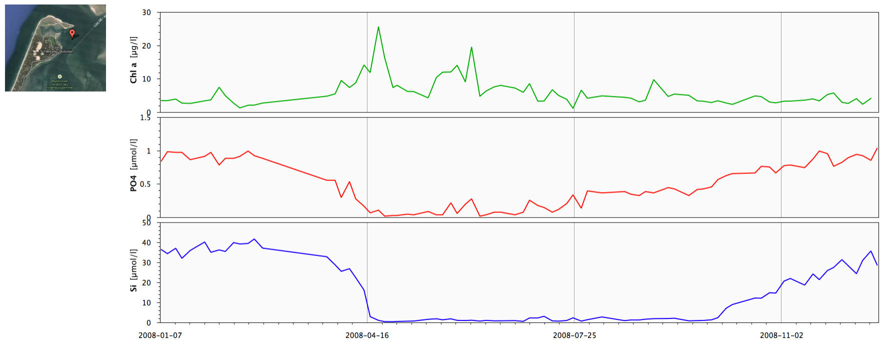
Ozone profiles



Surface water temperature



Southern elephant seal at surface



Surface water nutrients

Data access

All | **Water** | Sediment | Ice | Atmosphere

Chlorophyll a [Search]

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Always quote citation when using data!

More than 10000 datasets found on search for **»Chlorophyll a«** in **water**

Show Map | Google Earth | Data Warehouse

<< PREV | **1** | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | NEXT >>

1. **Berseneva, GP; Churilova, TY; Georgieva, LV (2004):** Pigment concentrations and biomass of phytoplankton and of its dominant species in surface Black Sea waters in 1998-2000
   Supplement to: **Berseneva, GP; Churilova, TY; Georgieva, LV (2004):** Seasonal variability of chlorophyll and phytoplankton biomass in the western part of the Black Sea. *Translated from Okeanologiya, 2004, 44(3), 389-398, Oceanology*
   Size: 2 datasets
   doi:10.1594/PANGAEA.762833 - Score: 100% - Similar datasets

2. **Churilova, TY (2001):** Light absorption and phytoplankton biomass in the Black Sea in spring 1995
   Supplement to: **Churilova, TY (2001):** Light absorption by phytoplankton and detritus in the Black Sea in spring. *Translated from Okeanologiya, 2001, 41(5), 719-727, Oceanology*
   Size: 2 datasets
   doi:10.1594/PANGAEA.761584 - Score: 97% - Similar datasets

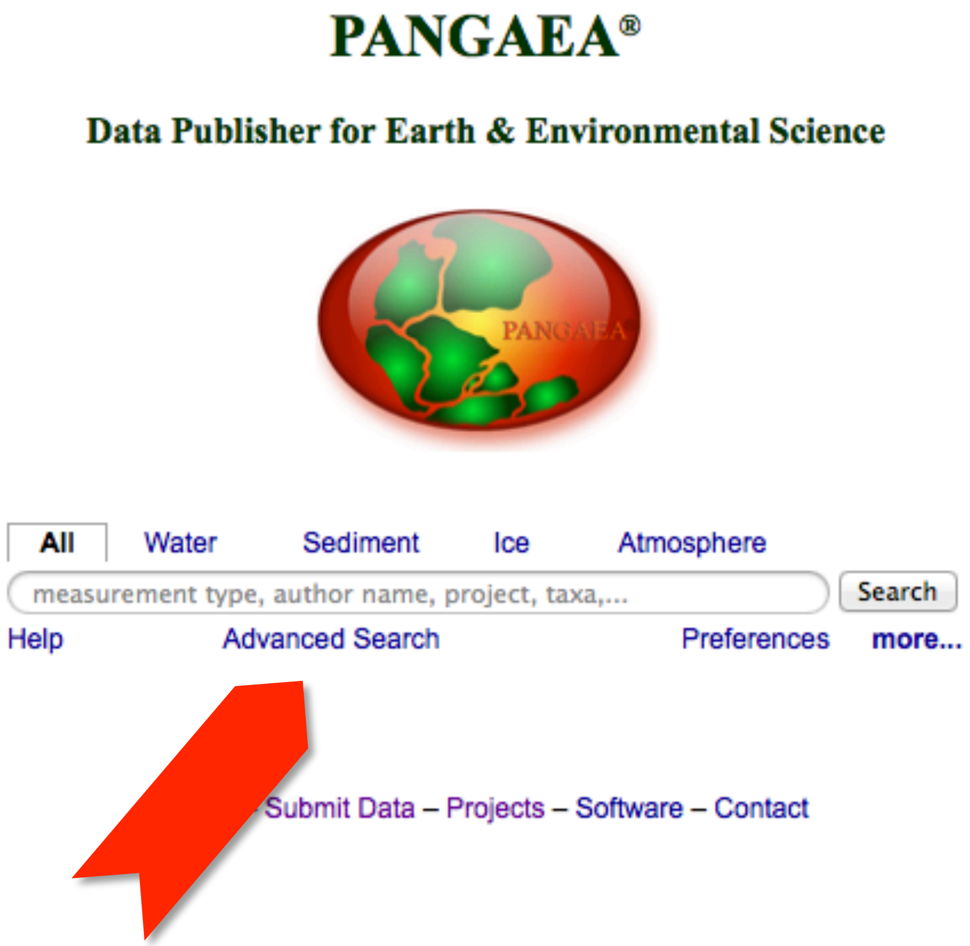
3. **Stel'makh, LV (1988):** Seasonal variations of contribution of large and fine fractions of phytoplankton to primary production and chlorophyll a in the Sevastopol Bay from April 1985 till March 1986
   Supplement to: **Stel'makh, LV (1988):** The contribution of picoplankton to primary production and the content of chlorophyll "a" in eutrophic waters as exemplified by Sevastopol Bay. *Oceanology*
   Size: 294 data points
   doi:10.1594/PANGAEA.758737 - Score: 97% - Similar datasets

4. **Mordasova, NV (1980):** (Table 1) Chlorophyll concentrations in the Southwest Indian Ocean
   Supplement to: **Mordasova, NV (1980):** Chlorophyll in the Southwestern Indian Ocean in relation to hydrologic conditions. *Oceanology*
   Size: 36 data points
   doi:10.1594/PANGAEA.755165 - Score: 94% - Similar datasets

5. **Cuny, P; Marty, J-C; Chiavérini, J et al. (2002):** Phytol and phytyldiol concentrations at DYFAMED time series station and sediment trap
   Supplement to: **Cuny, P; Marty, J-C; Chiavérini, J et al. (2002):** One-year seasonal survey of the chlorophyll photodegradation process in the northwestern Mediterranean Sea. *Deep Sea Research Part II: Topical Studies in Oceanography*
   Size: 10 datasets
   doi:10.1594/PANGAEA.738645 - Score: 94% - Similar datasets

6. **Krupatkina, DK; Ostrovskaya, NA (1984):** Chlorophyll-a concentrations in phytoplankton fractions in waters of the Black Sea
   Supplement to: **Krupatkina, DK; Ostrovskaya, NA (1984):** Variability and daily chlorophyll-a patterns in large and small phytoplankton fractions in various regions of the Black Sea in late summer. *Oceanology*
   Size: 4 datasets
   doi:10.1594/PANGAEA.756243 - Score: 92% - Similar datasets

Data access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Data access

All | **Water** | Sediment | Ice | Atmosphere

CHLOROPHYLL A [Search]

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74 datasets found on search for **»CHLOROPHYLL A«** in **water** with **geographic bounding box** (clear)

Show Map | Google Earth | Data Warehouse

<< PREV | **1** | 2 | 3 | 4 | 5 | 6 | 7 | 8 | NEXT >>

1. **Charalampopoulou, A; Poulton, AJ; Tyrrell, T et al. (2008):** Surface seawater carbonate chemistry, nutrients and phytoplankton community composition on a transect between North Sea and Arctic Ocean, 2008
   Supplement to: **Charalampopoulou, A; Poulton, AJ; Tyrrell, T et al. (2011):** Irradiance and pH affect coccolithophore community composition on a transect between the North Sea and the Arctic Ocean. *Marine Ecology Progress Series*
   Size: 5467 data points
   doi:10.1594/PANGAEA.763990 - Score: 100% - Similar datasets

2. **Mengedoht, D (2014):** Chlorophyll measurements during ALKOR cruise AL221_1
   Size: 40384 data points
   Dataset #835494 *(DOI registration in progress)* - Score: 67% - Similar datasets

3. **Mengedoht, D (2014):** Chlorophyll measurements during POSEIDON cruise PO324
   Size: 5536 data points
   Dataset #835495 *(DOI registration in progress)* - Score: 67% - Similar datasets

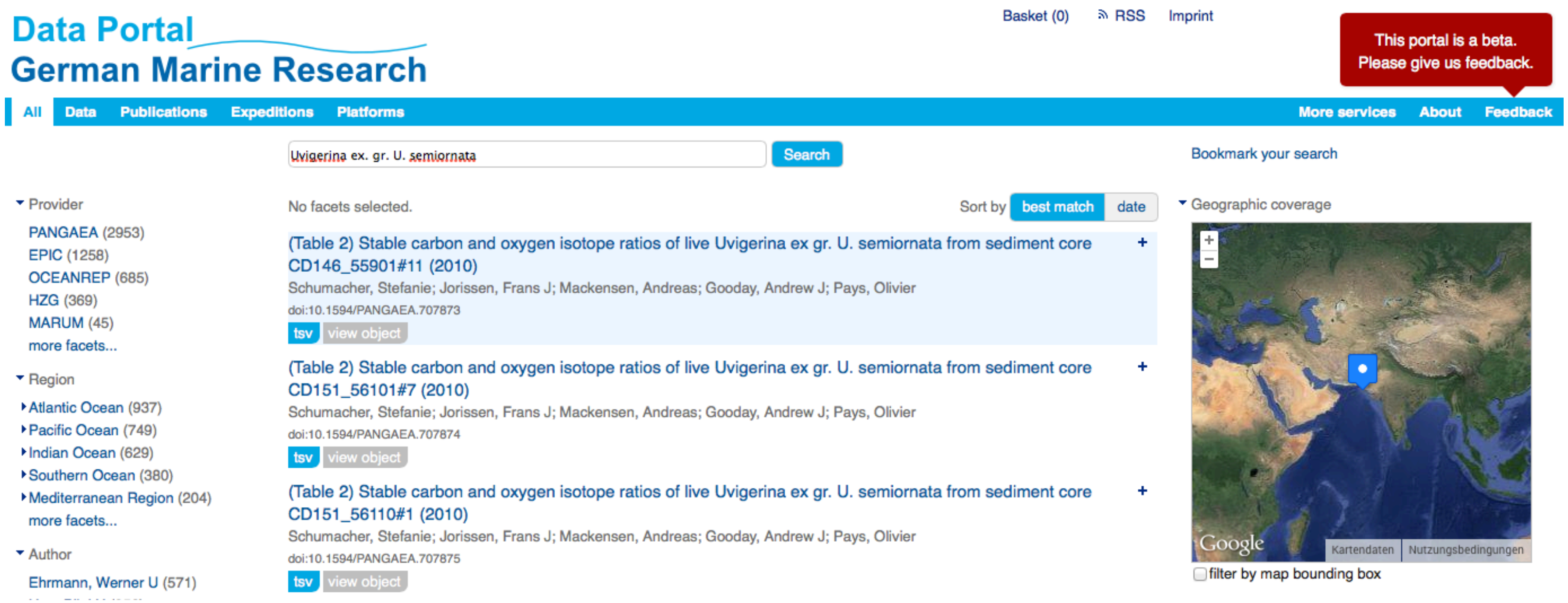
4. **Zielinski, O; Voß, D; Henkel, R et al. (2013):** Chlorophyll a concentration during the during the North Sea Coast Harmful Algal Bloom (NORCOHAB II) HEINCKE cruise HE302
   Size: 71 data points
   doi:10.1594/PANGAEA.811777 - Score: 49% - Similar datasets

5. **Moll, A; Radach, G; Aletsee, L et al. (1990):** Compilation of measurements from two interdisciplinary STAR-shaped surveys in the North Sea: The ZISCH - Dataset
   Related to: **Frauenheim, K; Neumann, V; Thiel, H et al. (1989):** The distribution of the larger epifauna during summer and winter in the North Sea and its suitability for environmental monitoring. *Senckenbergiana maritima*
   Moll, A; Radach, G (1990): ZISCH Parameter Report - Compilation of measurements from two interdisciplinary STAR-shaped surveys in the North Sea, Volume I: Graphic Report Sommer Cruise (02.05.-13.06.1986), Graphic Report Winter Cruise (21.01.-09.03.1987). *Technical Report, Institut für Meereskunde der Universität Hamburg*
   Moll, A; Radach, G (1990): ZISCH Parameter Report - Compilation of measurements from two interdisciplinary STAR-shaped surveys in the North Sea, Volume II Data Lists. *Technical Report, Institut für Meereskunde der Universität Hamburg*
   (and more)
   Size: 21 datasets
   doi:10.1594/PANGAEA.772084 - Score: 39% - Similar datasets

Data access

Web service

exchange with portals



search for *Chlorophyll a*

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Always quote citation when using data!

Data Warehouse Download *(BETA)* on query for **»Chlorophyll a«** in **water**

To start a data warehouse download, add geocodes *(colored red/blue)* and parameters to the configuration by dragging or double-clicking them. It is recommended to first choose a vertical geocode *(colored red)* to further reduce the list of available parameters. Order of geocodes and parameters in the download matrix may be changed by dragging rows in the configuration list. For best results put latitude/longitude in one of the first columns, as the download matrix is ordered by the primary geocode! Depending on size of result set, the query may take some time until file download starts.

Available Parameters and Geocodes

Page 1 of 185 < prev 1 2 3 4 5 6 next >

Score	Parameter/Geocode
	DEPTH, water [m]
	LATITUDE
	LONGITUDE
	DATE/TIME
	DEPTH, sediment/rock [m]
	ALTITUDE [m]
	DEPTH, ice/snow [m]
	HEIGHT above ground [m]
	ELEVATION [m a.s.l.]
	AGE [ka BP]
	ORDINAL NUMBER
100.0%	Chlorophyll a [µg/l]
27.2%	Temperature, water [°C]
27.0%	Chlorophyll total [µg/l]
25.8%	Bottle number

Configuration

Page 1 of 1 < prev 1 next >

Parameter/Geocode	Method
DEPTH, water [m]	
LATITUDE	
LONGITUDE	
DATE/TIME	no average
Chlorophyll a [µg/l]	<any>

☐ Implicit averaging

☐ Calculate standard deviation of averaged values

Download data in the following character encoding: ISO-8859-1: ISO Western (PANGAEA default)

Start Data Warehouse Query

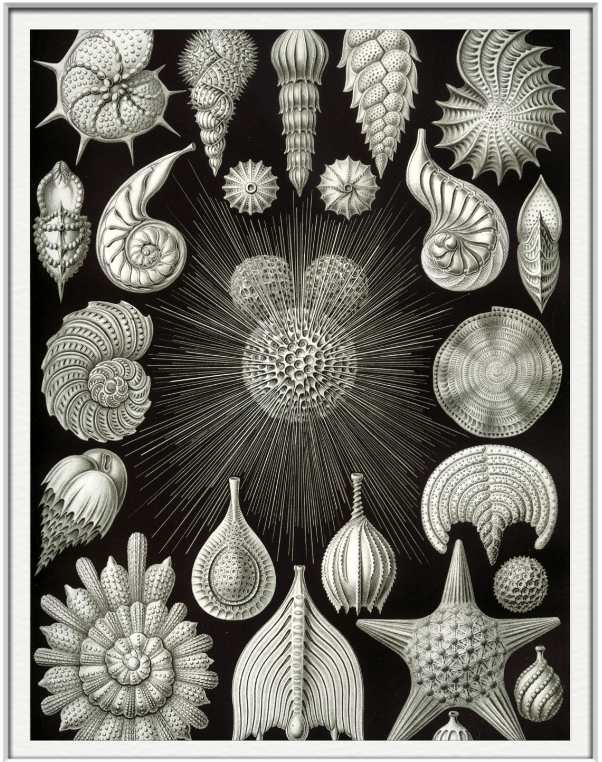
Contact

Data Warehouse

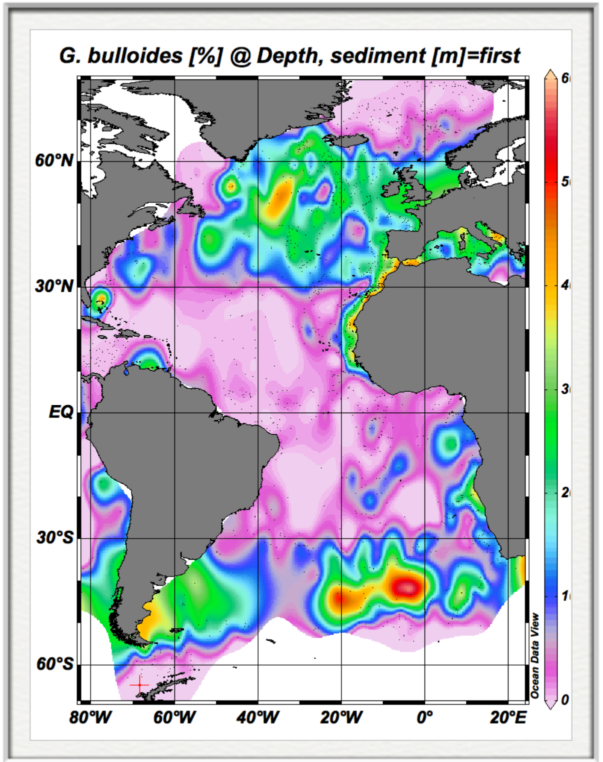
search for *Chlorophyll a*

	A	B	C	D	E	F	G	H	I	J
1	Depth water	Latitude	Longitude	Date/Time	Chl a [µg/l]	Origin of Values				
2	0	57.3203	20.137	2010-05-09T10:12:10	10.32	http://doi.pangaea.de/10.1594/PANGAEA.777607				
3	0	57.3203	20.137	2010-05-09T10:12:39	8.59	http://doi.pangaea.de/10.1594/PANGAEA.777607				
4	0	57.3203	20.137	2010-05-09T10:13:07	9.26	http://doi.pangaea.de/10.1594/PANGAEA.777607				
5	0	57.3203	20.137	2010-05-09T10:13:09	8.81	http://doi.pangaea.de/10.1594/PANGAEA.777607				
6	0	57.3203	20.137	2010-05-09T10:13:17	8.95	http://doi.pangaea.de/10.1594/PANGAEA.777607				
7	0	57.3203	20.137	2010-05-09T10:13:44	9.38	http://doi.pangaea.de/10.1594/PANGAEA.777607				
8	0	57.3203	20.137	2010-05-09T10:13:55	9.26	http://doi.pangaea.de/10.1594/PANGAEA.777607				
9	0	57.3203	20.137	2010-05-09T10:14:09	8.82	http://doi.pangaea.de/10.1594/PANGAEA.777607				
10	0	57.3203	20.137	2010-05-09T10:14:12	9.14	http://doi.pangaea.de/10.1594/PANGAEA.777607				
11	0	57.3203	20.137	2010-05-09T10:14:32	9	http://doi.pangaea.de/10.1594/PANGAEA.777607				
12	0	57.3203	20.137	2010-05-09T10:15:26	11.01	http://doi.pangaea.de/10.1594/PANGAEA.777607				
13	0	57.3203	20.137	2010-05-09T10:15:39	10.84	http://doi.pangaea.de/10.1594/PANGAEA.777607				
14	0	57.3203	20.137	2010-05-09T10:20:34	-0.85	http://doi.pangaea.de/10.1594/PANGAEA.777607				
15	0	57.3203	20.137	2010-05-09T10:11:24	9.93	http://doi.pangaea.de/10.1594/PANGAEA.777607				
16	0	57.3203	20.137	2010-05-09T10:11:27	9.55	http://doi.pangaea.de/10.1594/PANGAEA.777607				
17	0	57.3203	20.137	2010-05-09T10:11:59	11.43	http://doi.pangaea.de/10.1594/PANGAEA.777607				
18	0	57.3203	20.137	2010-05-09T10:12:03	12.84	http://doi.pangaea.de/10.1594/PANGAEA.777607				
19	0	57.3203	20.137	2010-05-09T10:12:03	12.99	http://doi.pangaea.de/10.1594/PANGAEA.777607				
20	0	57.3203	20.137	2010-05-09T10:12:08	11.63	http://doi.pangaea.de/10.1594/PANGAEA.777607				
21	0	57.3203	20.137	2010-05-09T10:12:09	10.62	http://doi.pangaea.de/10.1594/PANGAEA.777607				
22	0	57.3203	20.137	2010-05-09T10:12:39	8.64	http://doi.pangaea.de/10.1594/PANGAEA.777607				
23	0	57.3203	20.137	2010-05-09T10:12:41	8.9	http://doi.pangaea.de/10.1594/PANGAEA.777607				
24	0	57.3203	20.137	2010-05-09T10:12:42	8.27	http://doi.pangaea.de/10.1594/PANGAEA.777607				
25	0	57.3203	20.137	2010-05-09T10:12:44	8.79	http://doi.pangaea.de/10.1594/PANGAEA.777607				
26	0	57.3203	20.137	2010-05-09T10:12:58	8.56	http://doi.pangaea.de/10.1594/PANGAEA.777607				
27	0	57.3203	20.137	2010-05-09T10:13:29	9.75	http://doi.pangaea.de/10.1594/PANGAEA.777607				
28	0	57.3203	20.137	2010-05-09T10:14:01	8.86	http://doi.pangaea.de/10.1594/PANGAEA.777607				
29	0	57.3203	20.137	2010-05-09T10:14:07	9.49	http://doi.pangaea.de/10.1594/PANGAEA.777607				
30	0	57.3203	20.137	2010-05-09T10:14:08	8.78	http://doi.pangaea.de/10.1594/PANGAEA.777607				
31	0	57.3203	20.137	2010-05-09T10:14:57	10.94	http://doi.pangaea.de/10.1594/PANGAEA.777607				
32	0	57.3203	20.137	2010-05-09T10:15:20	11.77	http://doi.pangaea.de/10.1594/PANGAEA.777607				
33	0	57.3203	20.137	2010-05-09T10:15:24	11.3	http://doi.pangaea.de/10.1594/PANGAEA.777607				
34	0	57.3203	20.137	2010-05-09T10:15:26	10.51	http://doi.pangaea.de/10.1594/PANGAEA.777607				
35	0	57.3203	20.137	2010-05-09T10:15:35	11.16	http://doi.pangaea.de/10.1594/PANGAEA.777607				
36	0	57.3203	20.137	2010-05-09T10:20:34	-0.85	http://doi.pangaea.de/10.1594/PANGAEA.777607				
37	0	57.3203	20.137	2010-05-10T05:29:47	-0.35	http://doi.pangaea.de/10.1594/PANGAEA.777607				

Data Warehouse - Compilation



Globigerina bulloides



Distribution map (ODV)

Empty archives

Most researchers agree that open access to data is the scientific ideal, so what is stopping it happening? **Bryn Nelson** investigates why many researchers choose not to share.

ILLUSTRATIONS BY J. H VANDIERENDONCK

In 2003, the University of Rochester in New York launched a digital archive designed to preserve and share dissertations, preprints, working papers, photographs, music scores — just about any kind of digital data the university's investigators could produce. Six months of research and marketing had convinced the university that a publicly accessible online archive would be well received. At the time of the launch, the university librarians were worried that a flood of uploaded data might swamp the available storage space.

Six years later, the US$200,000 repository lies mostly empty.

or didn't understand how to use the archive, or lamented that they just didn't have any more hours left in the day to spend on this business.

As Gibbons and anthropologist Nancy Fried Foster observed in their 2005 postmortem[1], "The phrase 'if you build it, they will come' does not yet apply to IRs [institutional repositories]."

A similar reality check has greeted other data-sharing efforts. Most researchers happily embrace the idea of sharing. It opens up observations to independent scrutiny, fosters

"We got the software up and running and said 'Give us your stuff'. That's

data. Physicists, mathematicians and computer scientists use arXiv.org, operated by Cornell University in Ithaca, New York; the International Council for Science's World Data System holds data for fields such as geophysics and biodiversity; and molecular biologists use the Protein Data Bank, GenBank and dozens of other sites. The astronomy community has the International Virtual Observatory Alliance, geoscientists and environmental researchers have Germany's Publishing Network for Geoscientific & Environmental Data (PANGAEA),

HELMHOLTZ GEMEINSCHAFT

Submit Data

Data provided by author/ principle investigator

During manuscript preparation or submission

data can be password protected until paper is published

Your benefit:

- ❖ citeable data, can be cross-referenced with journal articles

Acknowledgements
For supplementary data see: doi:10.1594/PANGAEA.707882.

- ❖ data in portals and catalogues
- ❖ open access to data
- ❖ data in several widely accepted machine-readable formats
- ❖ persistent identifier (DOI)
- ❖ quality check of metadata

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We are looking forward to archive Your data.

Thank You