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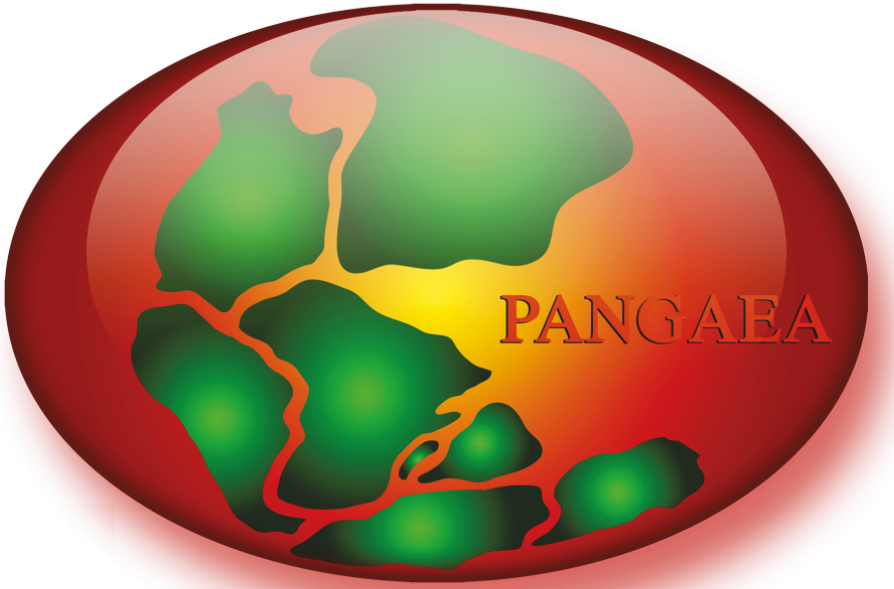
An introduction to the Data Library PANGAEA®



Stefanie Schumacher & Rainer Sieger

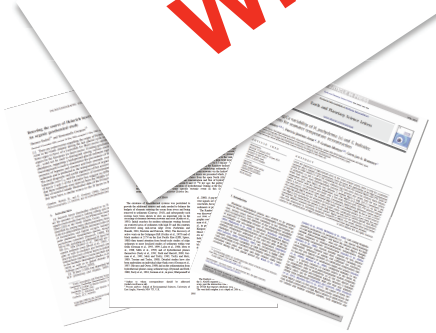
HELMHOLTZ GEMEINSCHAFT

At the beginning ...

... of your thesis

What about your data?

... all comes to an end?



Don‘t loose your data ...

SPIEGEL ONLINE WISSENSCHAFT

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15. August 2006 Drucken | Senden | Bookmark | Merken

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

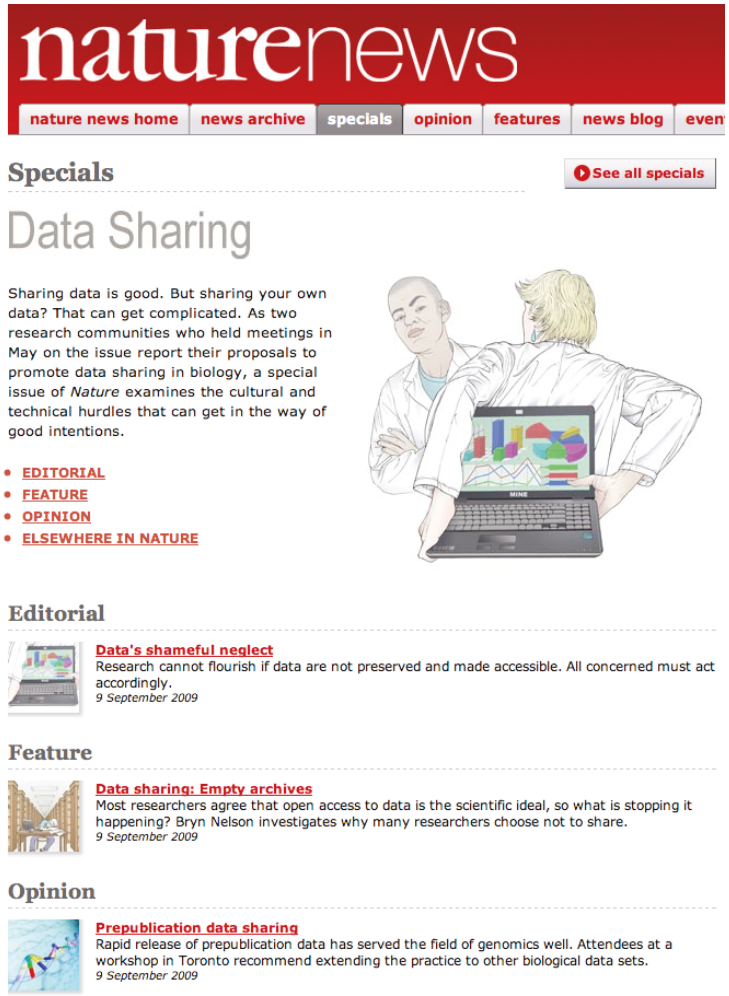
36. Data are produced at all stages in experimental research and in scholarship. Data sets are an important resource, which enable later verification of scientific interpretation and conclusions. They may also be the starting point for further studies. It is vital, therefore, that all primary and secondary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



nature news

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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

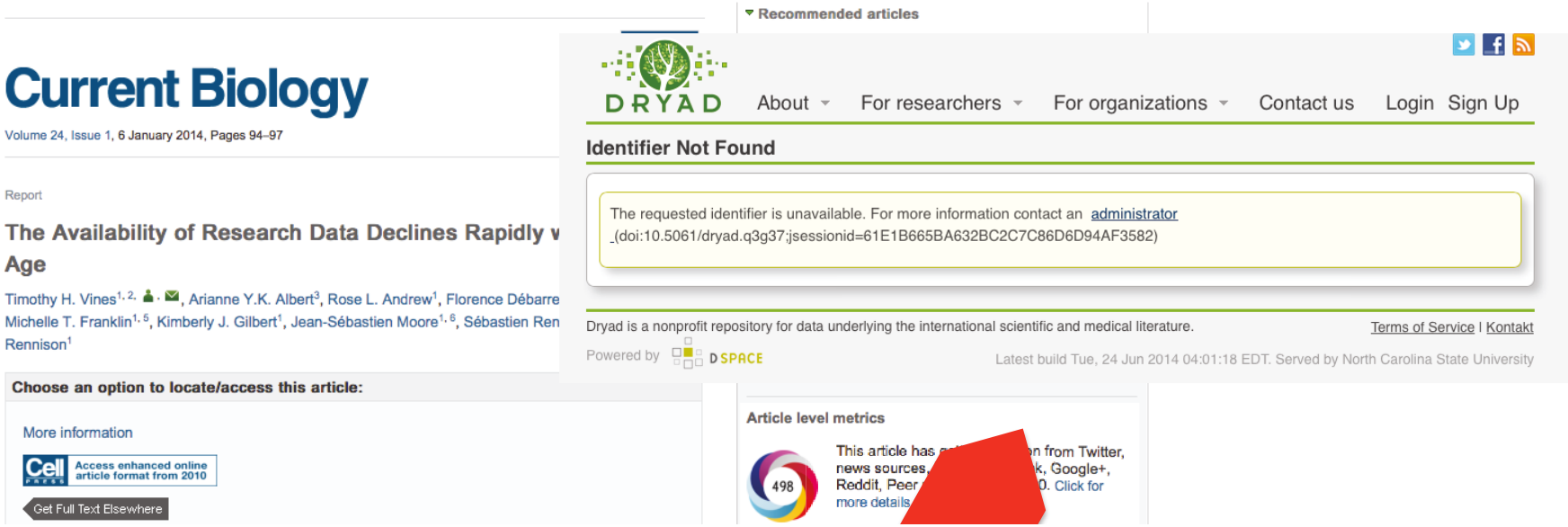
Feature

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

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

Report

The Availability of Research Data Declines Rapidly w
Age

Timothy H. Vines[1, 2], Arianne Y.K. Albert[3], Rose L. Andrew[1], Florence Débarre
Michelle T. Franklin[1, 5], Kimberly J. Gilbert[1], Jean-Sébastien Moore[1, 6], Sébastien Ren
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

ARTICLE INFO

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)

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.

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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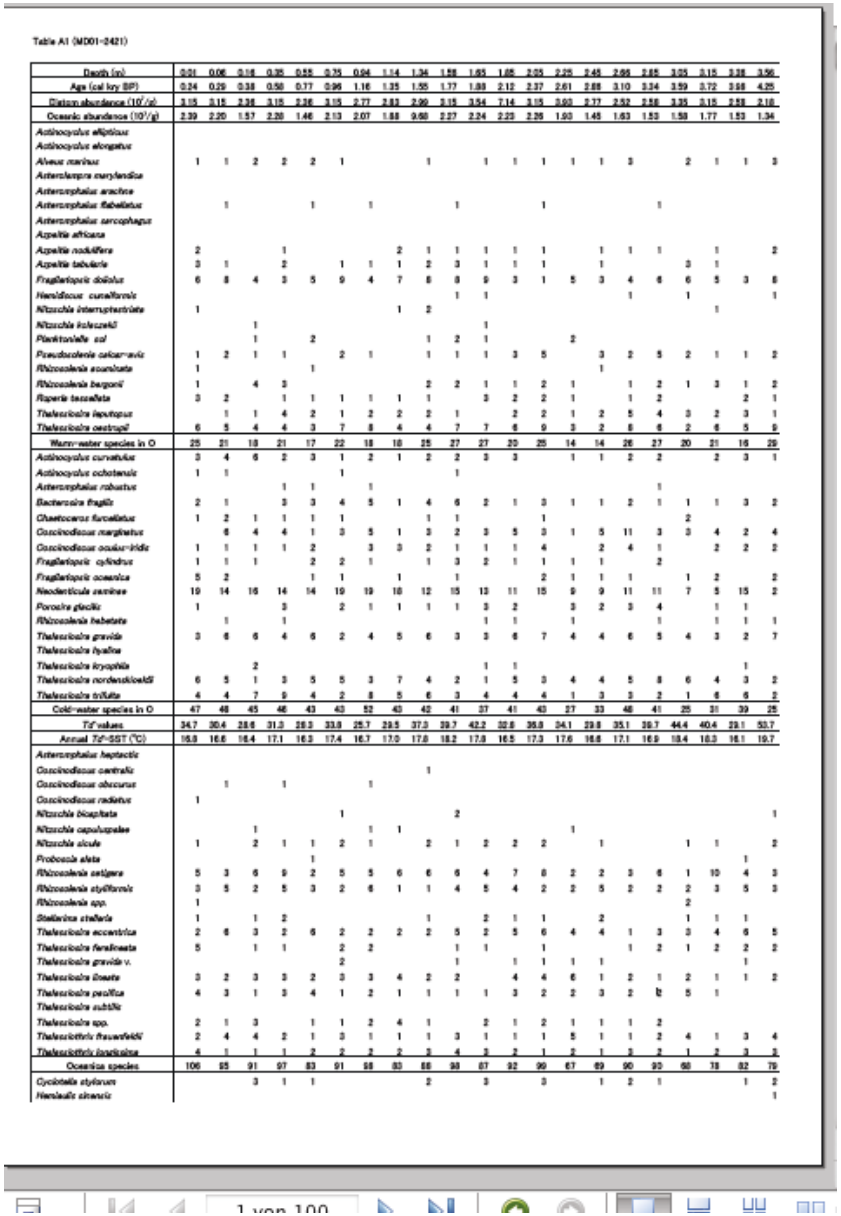
Loss of time for each scientist and incorrect transfer



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.

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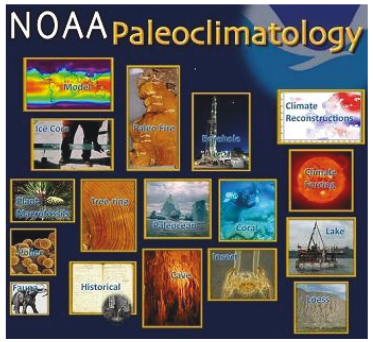
Paleoclimatology Data

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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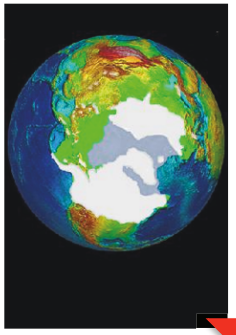


LoDico et al. 2006 Gulf of Mexico MD02-2550 Early Holocene Mg/Ca and d18O Data and SST Reconstruction

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:

DOC/NOAA/NESDIS/NCDC (National Climatic Data Center, NESDIS, NOAA, U.S. Department of Commerce)
325 Broadway, E/CC23
Boulder, CO 80305
USA
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?

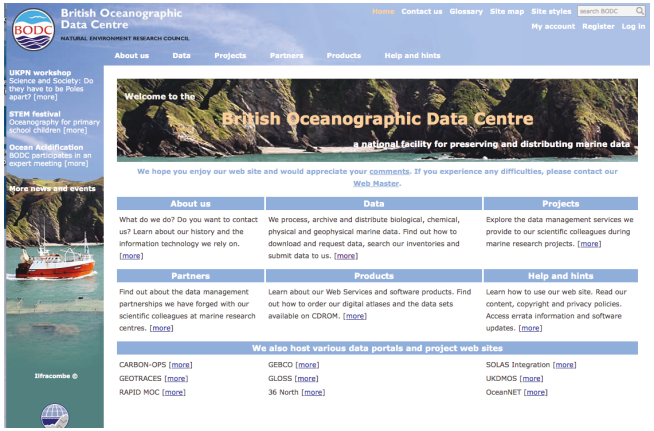
```
DATA:

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 0.083‰
           per 10 m (Adkins and Schrag, 2001).
```

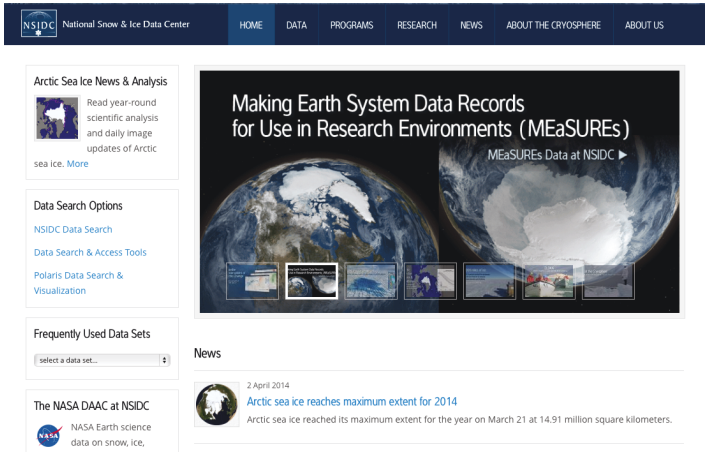
depth	Cal kyr	d13C	d18O	Mg/Ca	SST	d18Osw	Cal kyr	d18OGOM
190	7.02	0.81	-1.69	4.79	26.30	0.95	7.000	0.75
190.5	7.05	0.93	-1.57	4.84	26.41	1.10	7.025	0.87
191	7.07	0.81	-1.41	4.90	26.56	1.29	7.050	1.01
191.5	7.09	1.07	-1.39	4.80	26.32	1.26	7.075	1.17
192	7.11	1.03	-1.60	5.35	27.54	1.30	7.100	1.17
192.5	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

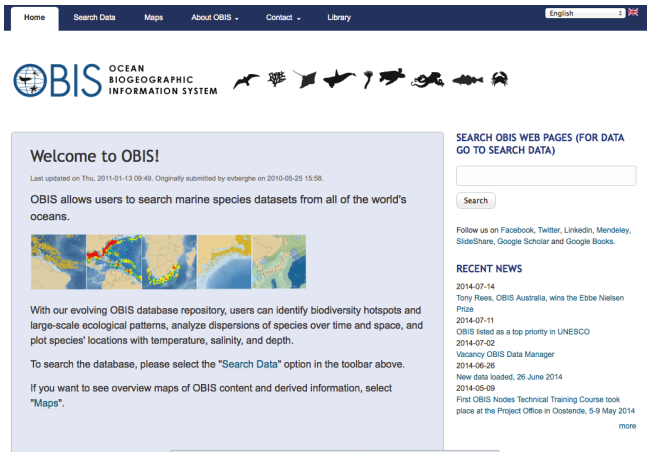
Oceanography



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	

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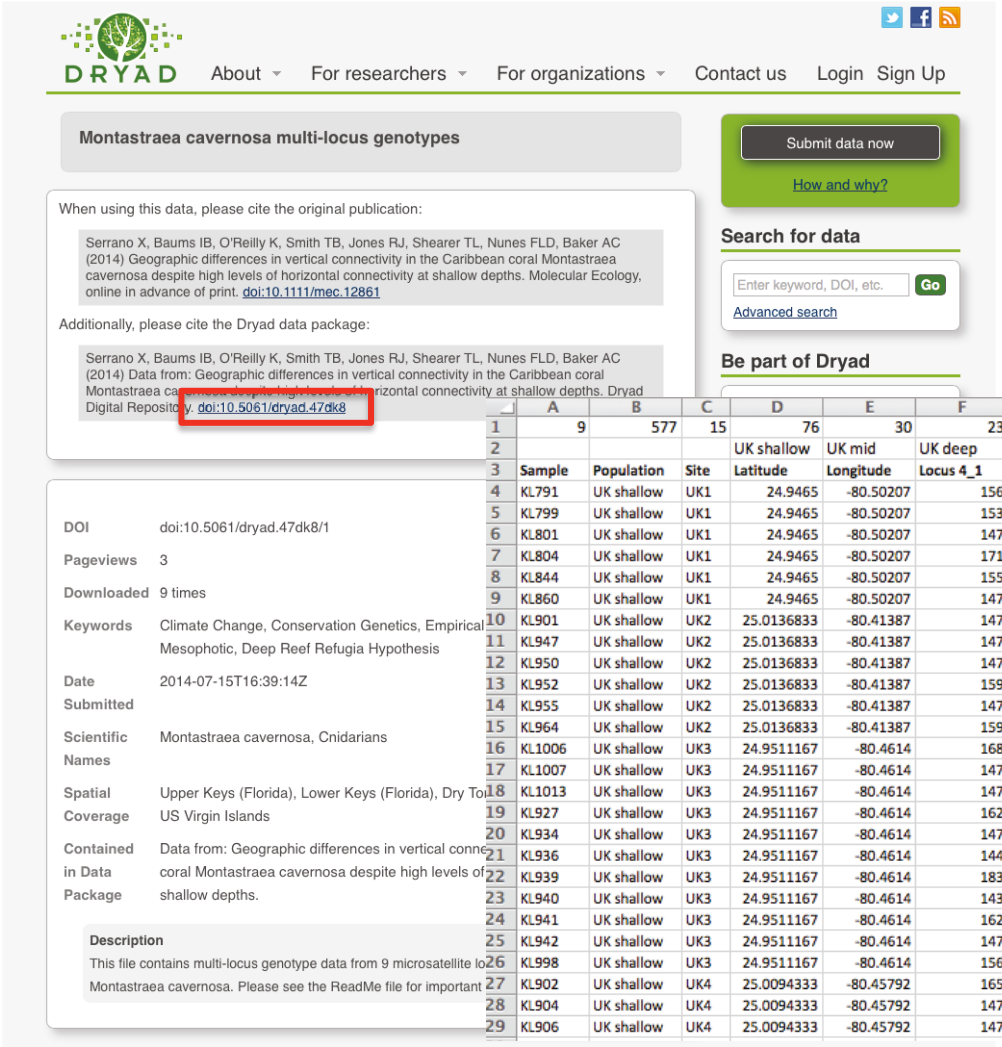
Data repository



	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
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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
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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
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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
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Data citation with doi

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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

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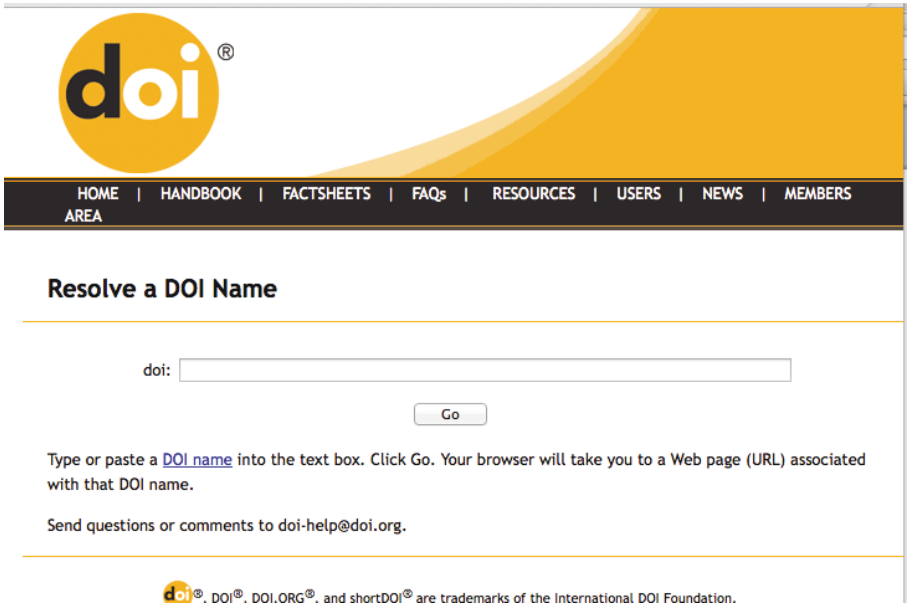

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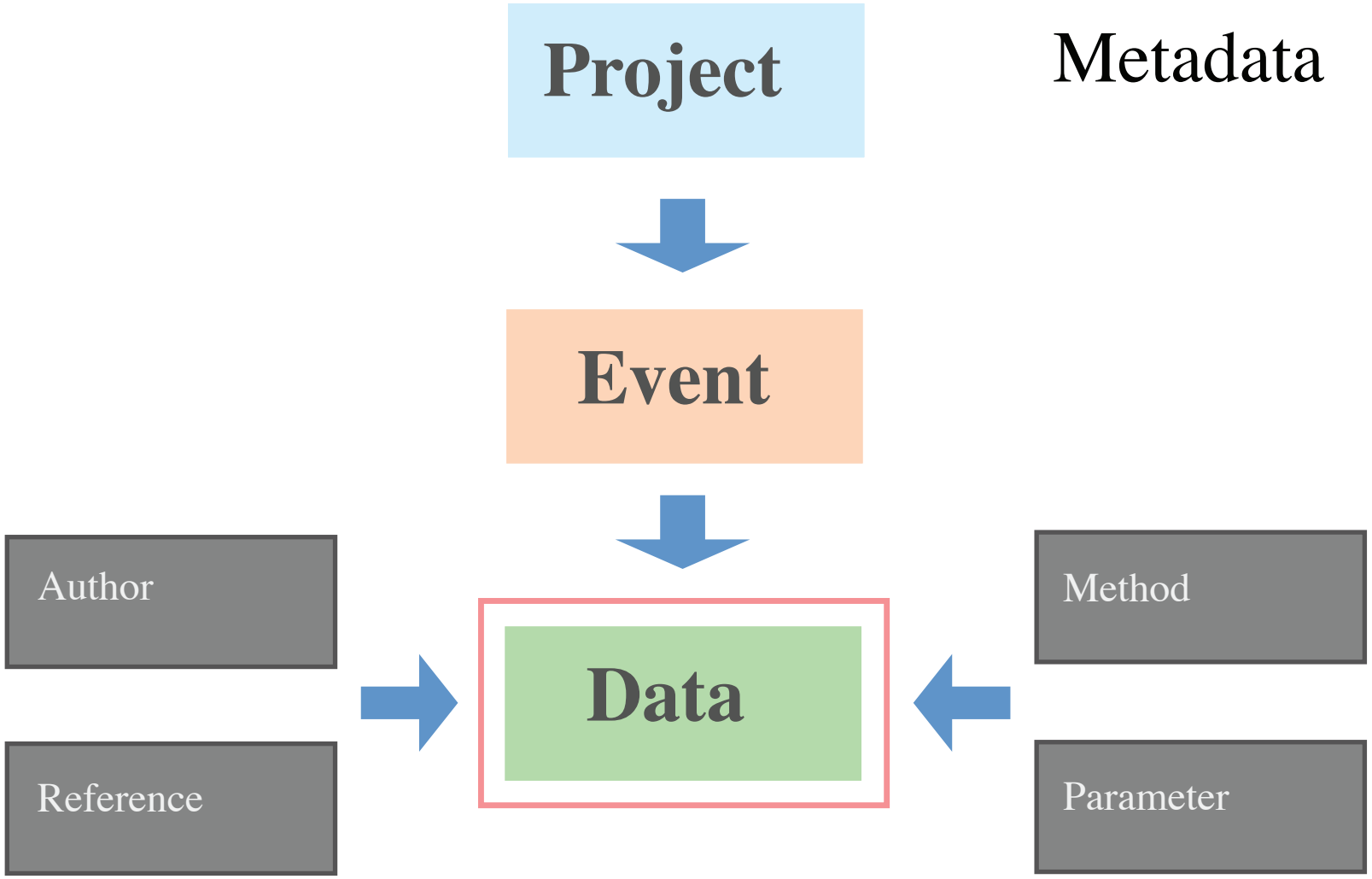
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Method
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Parameter

Data model

when ?

date/time or age

what ?

parameter [unit]

how ?

method

123.4 **text**

where ?

latitude
longitude

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Citation: Koizumi, I; Yamamoto, H (2010): Vertical distribution of diatoms in North Pacific sediments. doi:10.1594/PANGAEA.776366,
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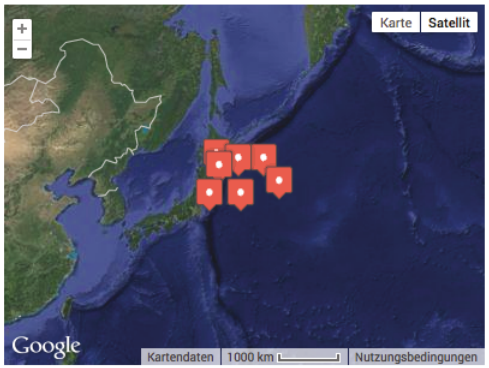

Abstract: Hydrographic variability in the Mixed Water Region of the Northwest Pacific Ocean at latitudes 35°-40°N, between the Kuroshio Extension and Oyashio Front, causes complex upwelling, leading to large primary productivity and thus great fishery resources. We reconstructed the periodicity of the 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.

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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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.

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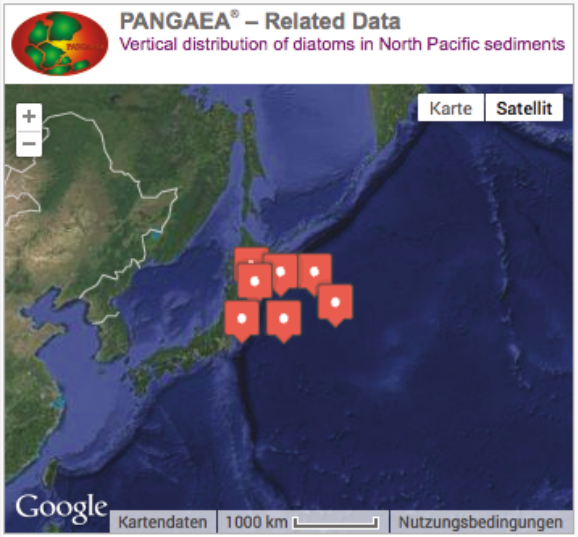

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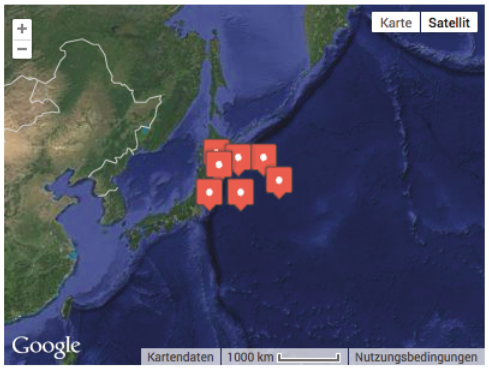

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Size: 7 datasets

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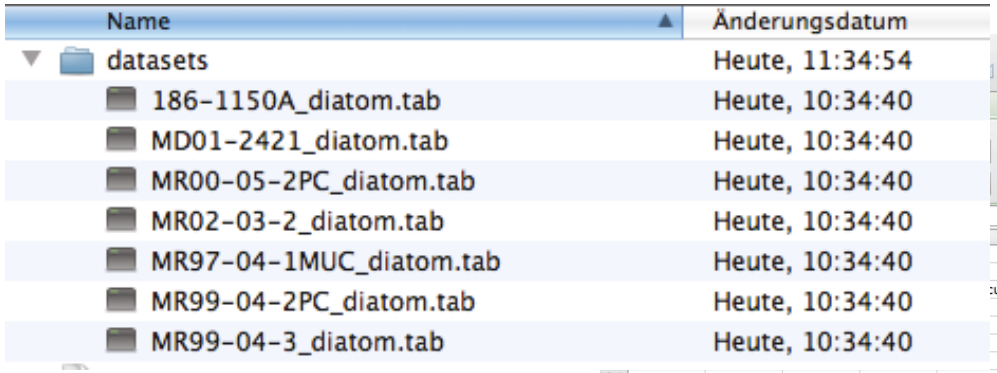
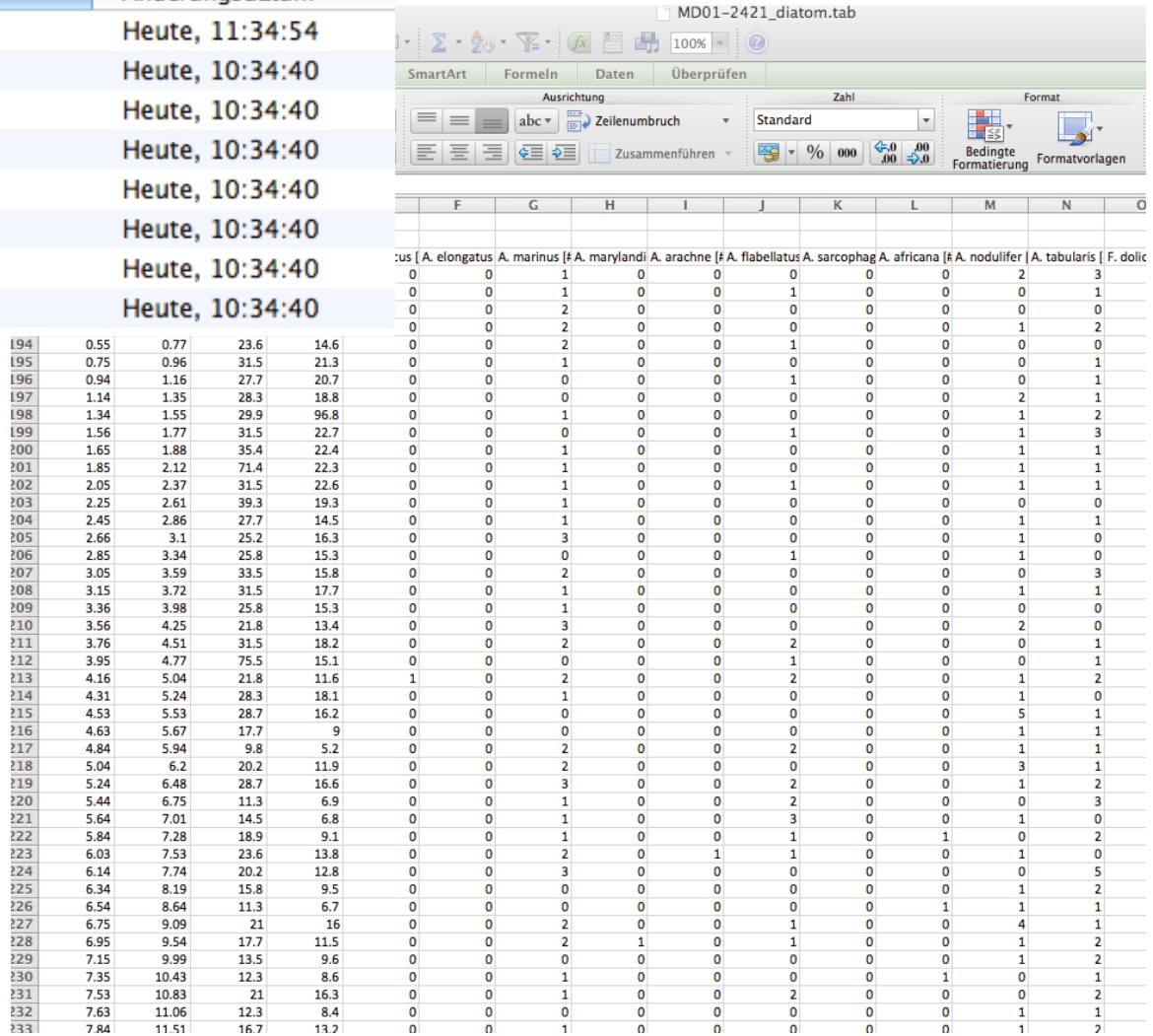
Data in PANGAEA





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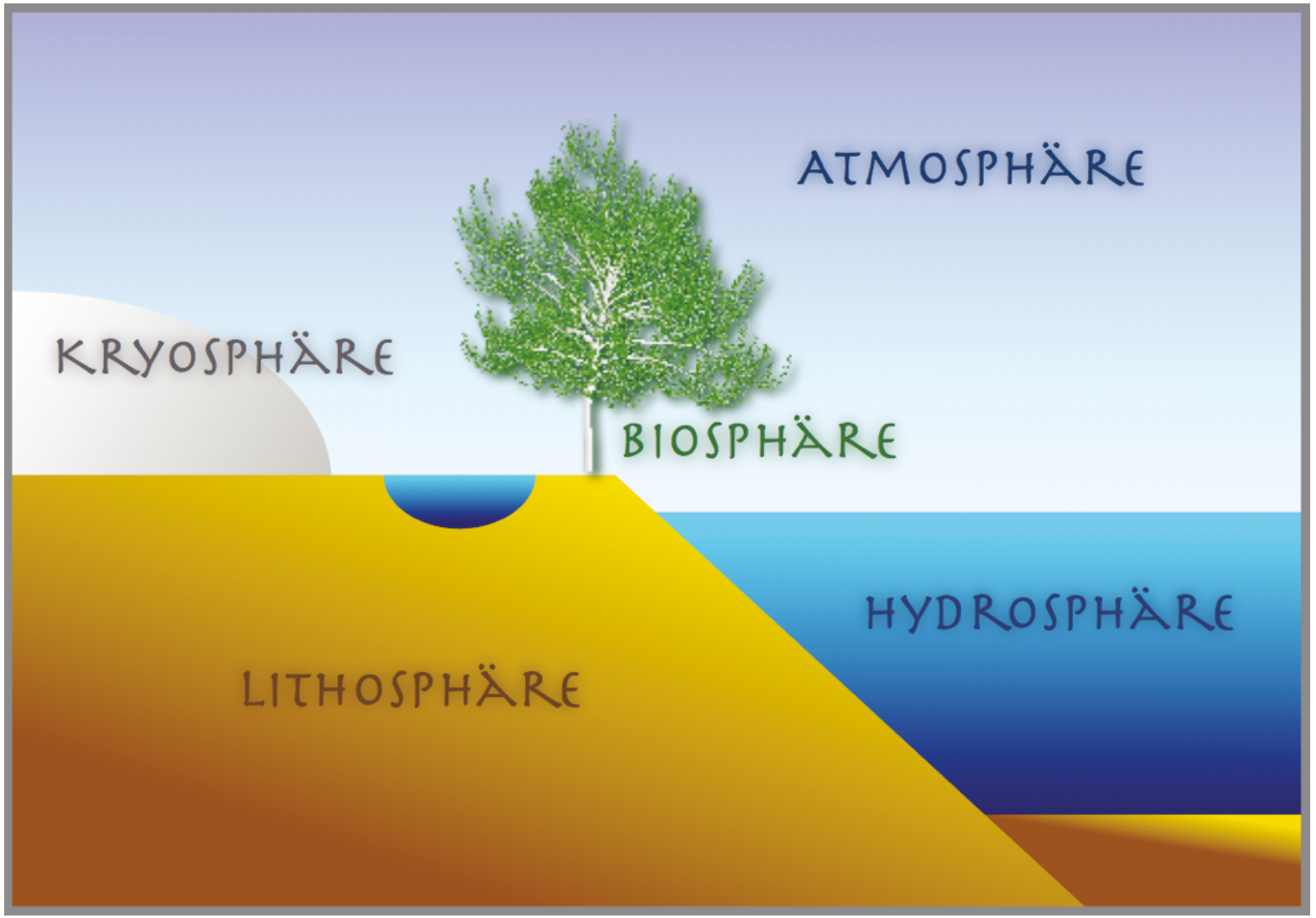

Major Projects

International	EU	National
BSRN	ONARC	PCM
JGOFS	CarboOcean	SIDRO
WOCE	EUR-Oceans	HISTRA
EPICA	HERMES/Hermione	ARCOD
IODP	EPOCA	DFG/BMBF

Radiation
Pollen
Marine environment
Tree rings
Oceanography
Ocean acidification
Ice cores
Data archaeology
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Examples

Geoscientific Research

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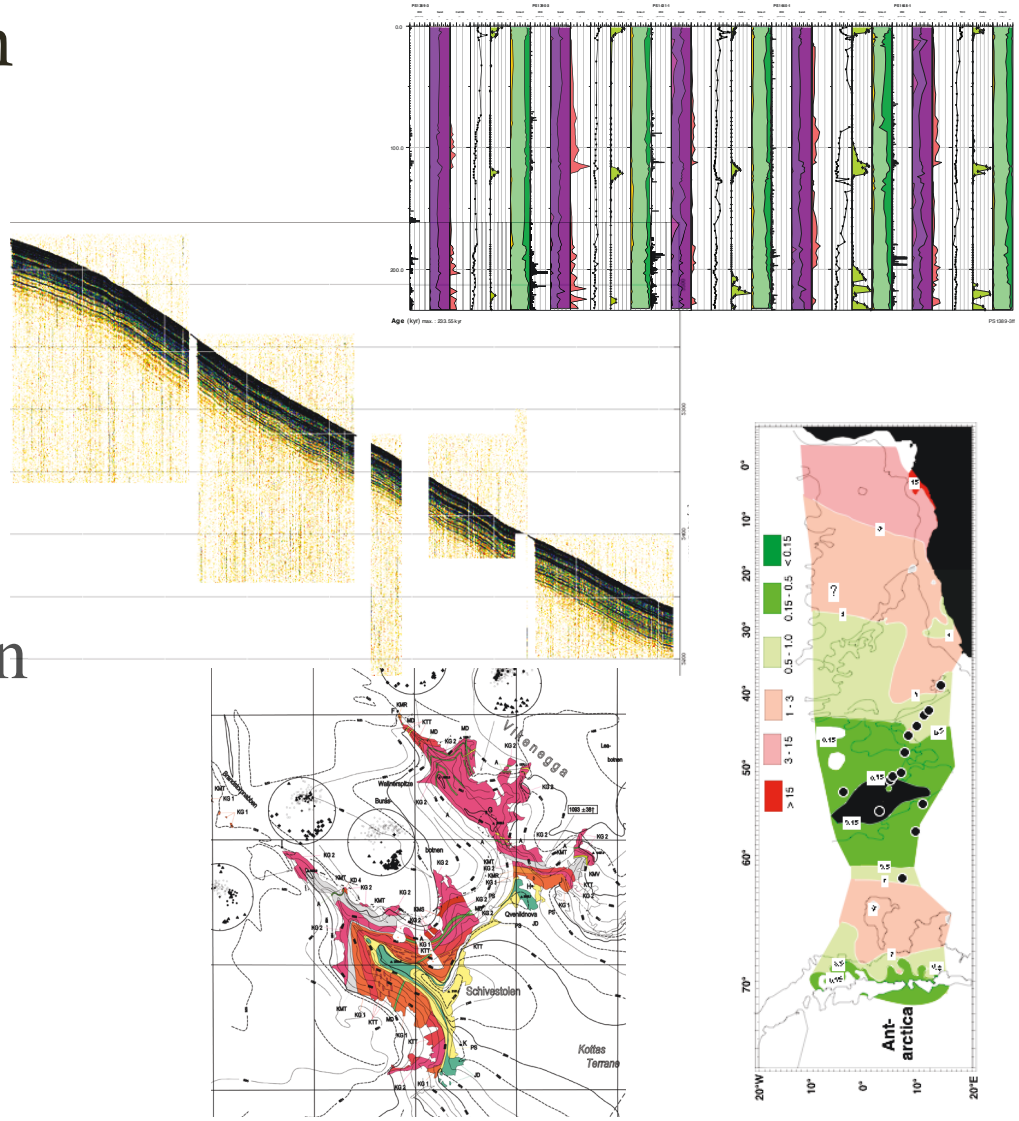
- Faunal distribution
- Geological map



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Examples

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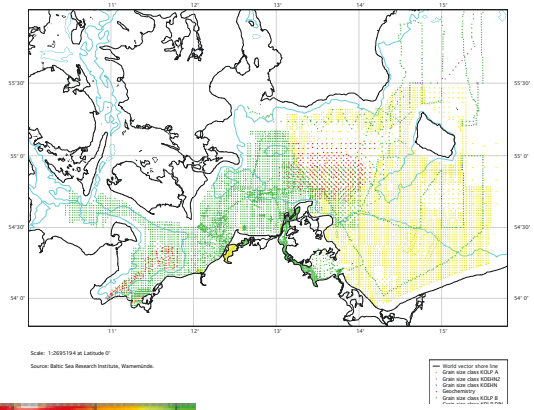
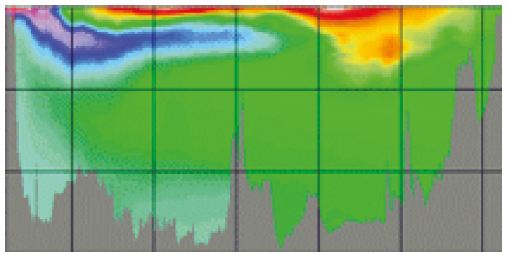


- Hydrographic profiles



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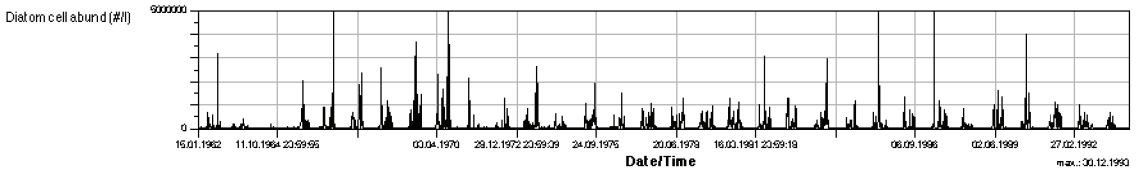

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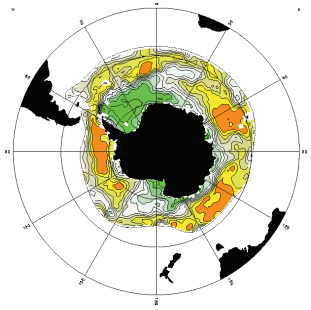

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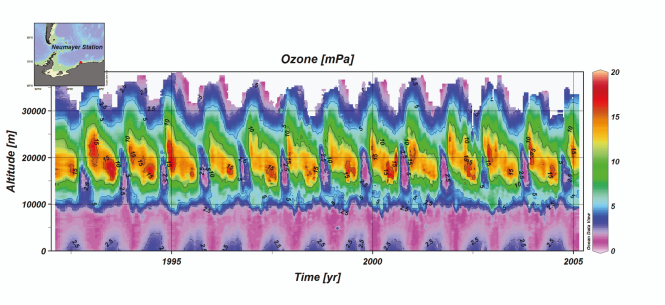
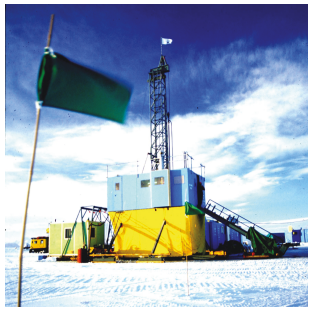
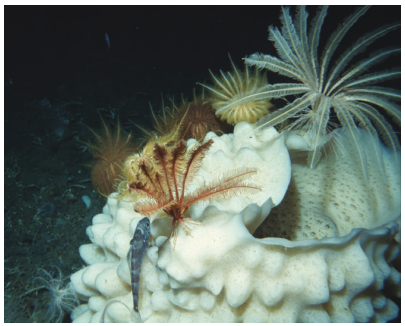


Ozone profiles

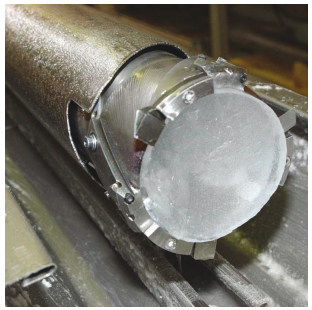
Sediments and Rocks



CRP
Cape Roberts Project



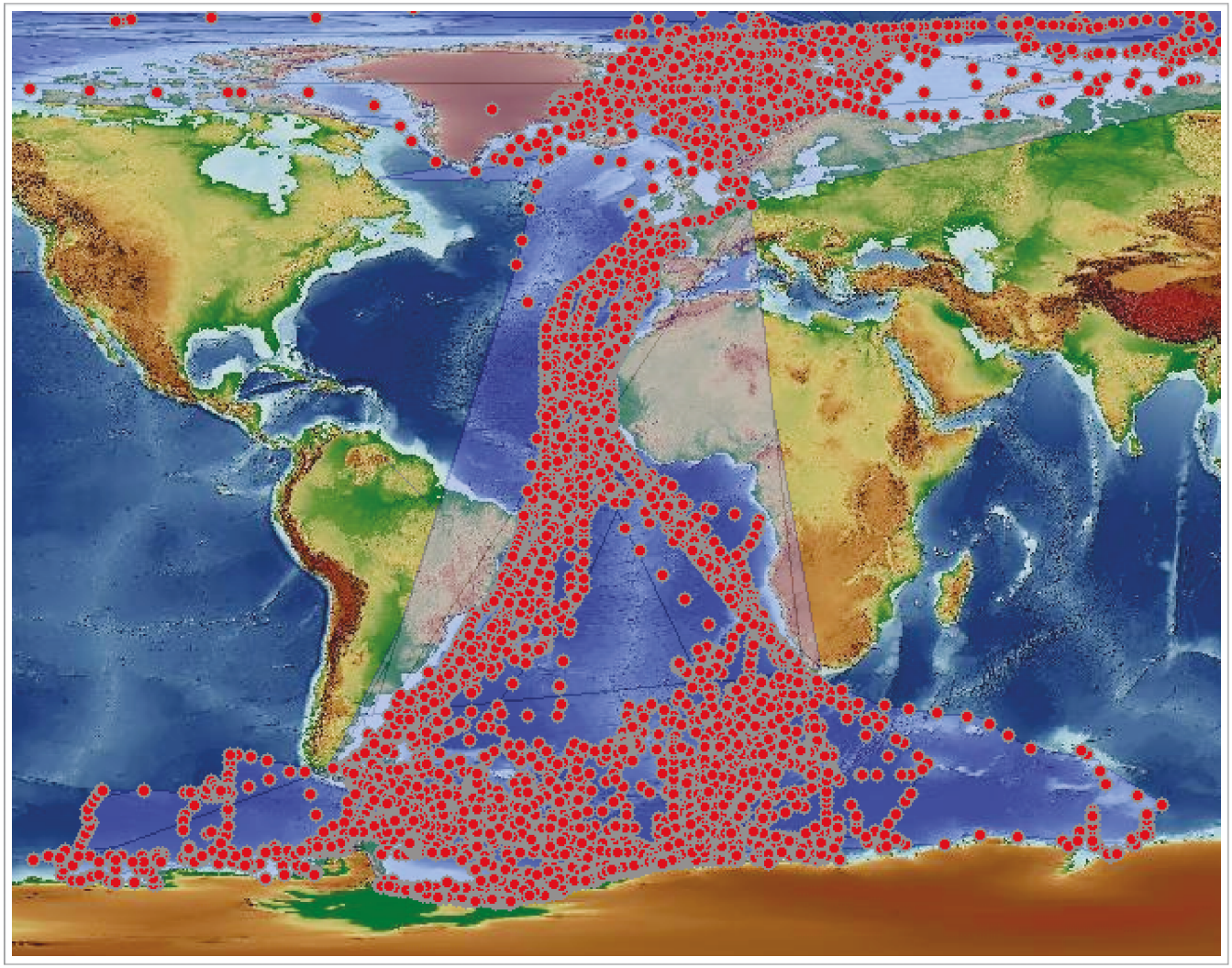
Archive of
Underwater Imaging



EPICA
European Project for
Ice Coring in Antarctica

Examples

Meteorological observations



doi:10.1594/PANGAEA.269619

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1. **Schmiedl, G; Pfeilsticker, M; Hemleben, C et al. (2004):** Stable oxygen and carbon isotope composition of benthic foraminifera from the western Mediterranean Sea

   Supplement to: **Schmiedl, G; Pfeilsticker, M; Hemleben, C et al. (2004):** Environmental and biological effects on the stable isotope composition of recent deep-sea benthic foraminifera from the western Mediterranean Sea. *Marine Micropaleontology*

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   doi:10.1594/PANGAEA.728234 - Score: 100% - Similar datasets

2. **Mackensen, A; Licari, L (2004):** Standing stocks and carbon isotopes of live benthic foraminifera from the South Atlantic

   Supplement to: **Mackensen, A; Licari, L (2004):** Carbon isotopes of live benthic foraminifera from the South Atlantic: Sensitivity to bottom water carbonate saturation state and organic matter rain rates. *In: Wefer, G; Mulitza, S & Ratmeyer, V (eds.), The South Atlantic in the Late Quaternary: Reconstruction of Material Budgets and Current Systems, Springer, Berlin, Heidelberg, New York*

   Size: 3 datasets

   doi:10.1594/PANGAEA.728233 - Score: 74% - Similar datasets

3. **Hayward, BW; Carter, R; Grenfell, HR et al. (2001):** Distribution of deep-sea foraminifera in surface sediments east of New Zealand

   Supplement to: **Hayward, BW; Carter, R; Grenfell, HR et al. (2001):** Depth distribution of Recent deep-sea benthic foraminifera east of New Zealand, and their potential for improving paleobathymetric assessments of Neogene microfaunas. *New Zealand Journal of Geology and Geophysics*

   Reference: **Hayward, BW; Neil, HL; Carter, R et al. (2002):** Factors influencing the distribution patterns of Recent deep-sea benthic foraminifera, east of New Zealand, Southwest Pacific Ocean. *Marine Micropaleontology*

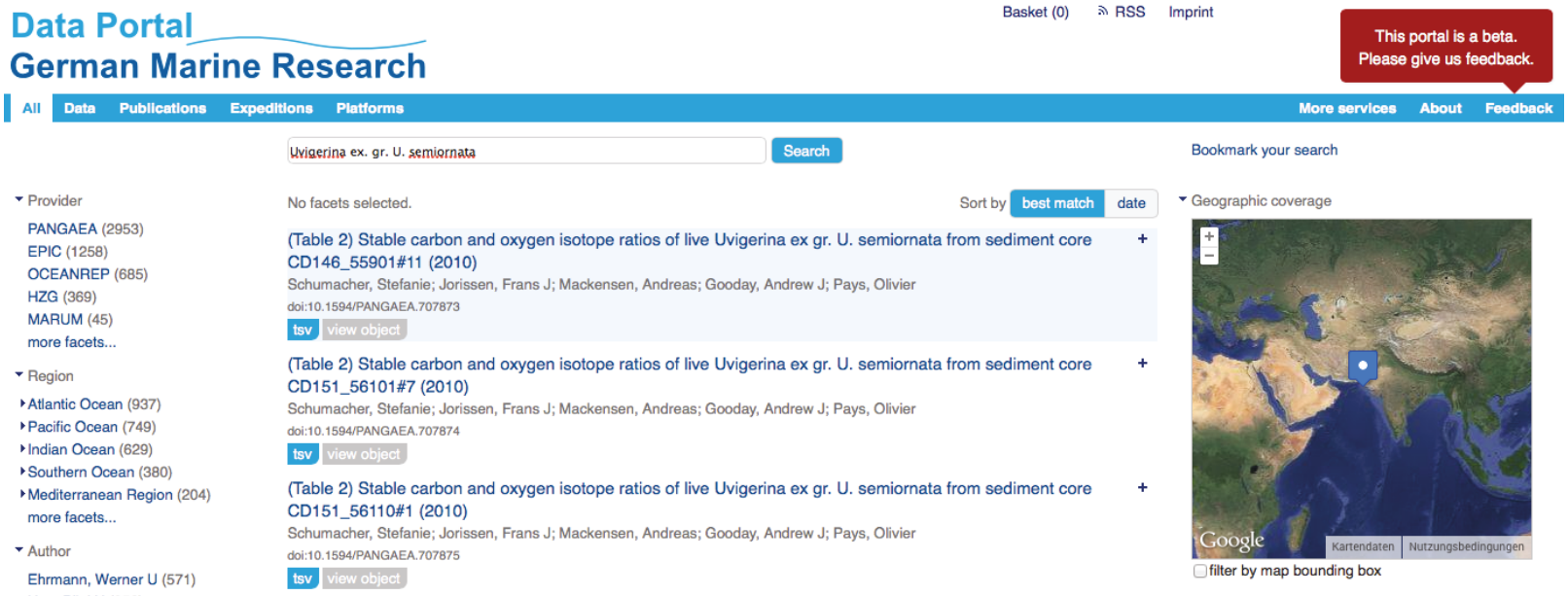
   Size: 3 datasets

   doi:10.1594/PANGAEA.705250 - Score: 35% - Similar datasets

Data access

Web service

exchange with portals



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37.8%	Globobulimina affinis [#/10 cm^3]
19.9%	Sample code/label
17.9%	Globobulimina affinis [#/g]
15.6%	Globobulimina pacifica
14.0%	Melonis pompilioides
13.5%	Pullenia bulloides
13.1%	Globobulimina affinis [%]
12.0%	Depth, composite [mcd]
11.8%	Uvigerina peregrina

Configuration

Page 1 of 1 < prev 1 next >

Parameter/Geocode	Method
LATITUDE	
LONGITUDE	
DEPTH, sediment [m]	
AGE [ka BP]	
Globobulimina affinis [#/10 cm^3]	<any>

☐ Implicit averaging
☐ Calculate standard deviation of averaged values

Download data in the following character encoding: x-MacRoman: Macintosh Roman

Start Data Warehouse Query

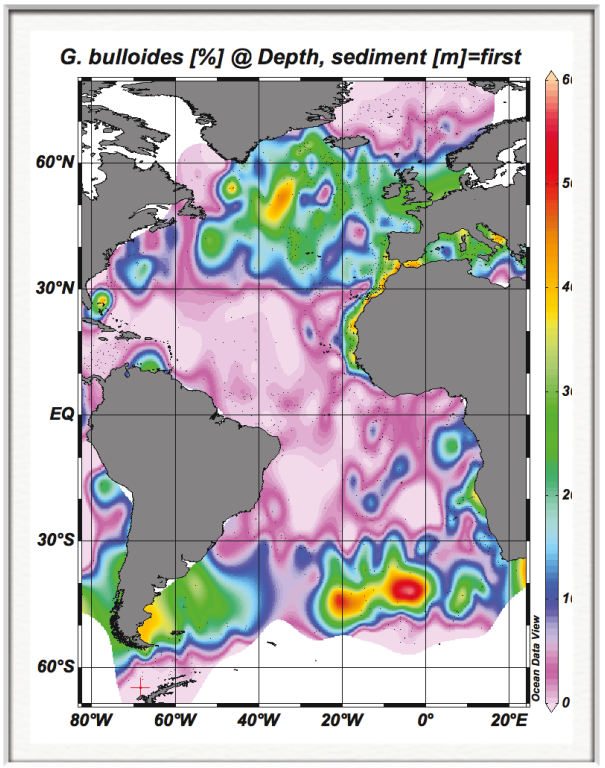
Data Warehouse

search for *Globobulimina affinis*

	A	B	C	D	E	F	G	H	I	J	K	L
1	Latitude	Longitude	Depth [m]	Age [ka BP]	G. affinis	G. affinis [#/10 cm**3]	G. affinis [#/g]	G. affinis [%]	Origin of Values			
2	-45.85	-75.6922	0.45		R				http://doi.pangaea.de/10.1594/PANGAEA.299500			
3	-45.85	-75.6917	478.12		R				http://doi.pangaea.de/10.1594/PANGAEA.299501			
4	-31.785	15.5	0					0	http://doi.pangaea.de/10.1594/PANGAEA.511340			
5	-31.785	15.5	0					0	http://doi.pangaea.de/10.1594/PANGAEA.511368			
6	-31.785	15.5	0			0			http://doi.pangaea.de/10.1594/PANGAEA.511349			
7	-31.785	15.5	0.02			0.12			http://doi.pangaea.de/10.1594/PANGAEA.511349			
8	-31.785	15.5	0.02					4.6	http://doi.pangaea.de/10.1594/PANGAEA.511342			
9	-31.785	15.5	0.02			0.26		0.3	http://doi.pangaea.de/10.1594/PANGAEA.511345;			
10	-31.785	15.5	0.04			0.26			http://doi.pangaea.de/10.1594/PANGAEA.511349			
11	-31.785	15.5	0.04			0			http://doi.pangaea.de/10.1594/PANGAEA.511349			
12	-28.998333	13.836667	0			0			http://doi.pangaea.de/10.1594/PANGAEA.511339			
13	-28.998333	13.836667	0.02			0			http://doi.pangaea.de/10.1594/PANGAEA.511339			
14	-28.998333	13.836667	0.02			0			http://doi.pangaea.de/10.1594/PANGAEA.511339			
15	-28.998333	13.836667	0.04			0			http://doi.pangaea.de/10.1594/PANGAEA.511339			
16	-28.998333	13.836667	0.04			0.26			http://doi.pangaea.de/10.1594/PANGAEA.511339			
17	-28.998333	13.836667	0.06			0.26			http://doi.pangaea.de/10.1594/PANGAEA.511339			
18	-27.951667	14.005	0					0.7	http://doi.pangaea.de/10.1594/PANGAEA.511340			
19	-27.951667	14.005	0					0	http://doi.pangaea.de/10.1594/PANGAEA.511368			
20	-27.951667	14.005	0			0			http://doi.pangaea.de/10.1594/PANGAEA.511350			
21	-27.951667	14.005	0.02			0			http://doi.pangaea.de/10.1594/PANGAEA.511350			
22	-27.951667	14.005	0.02					0.1	http://doi.pangaea.de/10.1594/PANGAEA.511342			
23	-27.951667	14.005	0.02			0		0	http://doi.pangaea.de/10.1594/PANGAEA.511345;			
24	-27.951667	14.005	0.04			0			http://doi.pangaea.de/10.1594/PANGAEA.511350			
25	-27.951667	14.005	0.04			0.06			http://doi.pangaea.de/10.1594/PANGAEA.511350			
26	-26.791667	13.455	0					1.1	http://doi.pangaea.de/10.1594/PANGAEA.511340			
27	-26.791667	13.455	0					0	http://doi.pangaea.de/10.1594/PANGAEA.511368			
28	-26.791667	13.455	0			0			http://doi.pangaea.de/10.1594/PANGAEA.511351			
29	-26.791667	13.455	0.02			0.06			http://doi.pangaea.de/10.1594/PANGAEA.511351			
30	-26.791667	13.455	0.02					1.3	http://doi.pangaea.de/10.1594/PANGAEA.511342			
31	-26.791667	13.455	0.02			0.26		0.6	http://doi.pangaea.de/10.1594/PANGAEA.511345;			
32	-26.791667	13.455	0.04			0.06			http://doi.pangaea.de/10.1594/PANGAEA.511351			
33	-26.791667	13.455	0.04			0.26			http://doi.pangaea.de/10.1594/PANGAEA.511351			
34	-25.516667	13.233333	0					3.3	http://doi.pangaea.de/10.1594/PANGAEA.511340			
35	-25.516667	13.233333	0					3.3	http://doi.pangaea.de/10.1594/PANGAEA.511368			
36	-25.516667	13.233333	0			1.86			http://doi.pangaea.de/10.1594/PANGAEA.511352			
37	-25.516667	13.233333	0.02			2.76			http://doi.pangaea.de/10.1594/PANGAEA.511352			
38	-25.516667	13.233333	0.02			1.4		5.4	http://doi.pangaea.de/10.1594/PANGAEA.511345;			
39	-25.516667	13.233333	0.04			1.98			http://doi.pangaea.de/10.1594/PANGAEA.511352			

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),

Submit Data

Data provided by author/ principle investigator

During manuscript preparation or submission

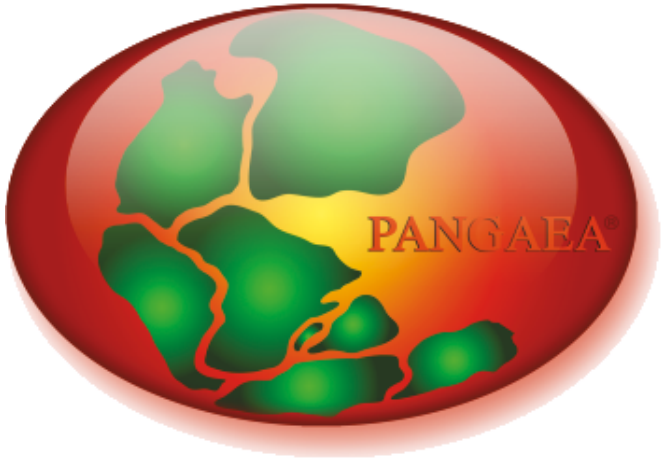
data can be password protected until paper is published

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, linked in ePic
- open access to data
- data in several widely accepted machine-readable formats
- persistant identifier (DOI)
- quality assurance on metadata



www.pangaea.de

We are looking forward to archive Your data.

Thank You