EURO-BASIN

Work Package 1
Data Management & Integration

WP Leader: Stéphane PESANT

marum

Universität Bremen

WP1 OBJECTIVE

"Develop methods to consolidate and integrate long-term data from European and international databases for modelling and prediction of the Atlantic Ocean ecosystem and related services."

WP1 ACTIVITIES

- Data Archaeology
- Data Safeguarding
- Data Publication, Access & Dissemination
- Data Networking & Integration

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (WP2-5)
Supports Retrospective Analyses (WP2-5)

ACTIVITIES

1. Supports WP2 – Biological Pump
2. Supports WP3 – Distribution of key species
3. Supports WP4 – Trophic Flows
4. Supports WP4 – Trophic Flows
5. Supports WP4 – Trophic Flows
6. Supports WP5 – Living Resources
7. Supports WP5 – Living Resources
8. Supports WP5 – Living Resources

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (300K €)

Activity 1: Rates of particulate matter downward flux, decomposition and aggregation; transfer efficiencies

Sources: data archives and literature
Supports: WP2 – Biological Pump
Responsible: NERC (SANDERS)

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (300K €)

Activity 2: Near surface distribution of key jellyfish species in the North Atlantic Ocean and Self Seas.

Sources: CPR samples (2008-2010) using genomic analyses
Supports: WP3 – Distribution of key species
Responsible: SAHFOS (LICANDRO)

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (300K €)

Activity 3: Abundance of key zooplankton species (*C. finmarchicus*, *C. hyperboreus*, *Oithona* and *Oncaea*) over decadal time scales for the North Atlantic.

Sources: Traditional net samples
Supports: WP4 – Trophic Flows
Responsible: DTU-AQUA (KÖSTER)

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (300K €)

Activity 4: From biogeography to abundance and biomass of plankton and fish in the North Atlantic Ocean and Self Seas.

Sources: EurOBIS, US-OBIS and CanOBIS
Supports: WP4 – Trophic Flows
Responsible: EurOBIS (HERNANDEZ)

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (300K €)

Activity 5: Abundance, size-spectra, biovolume and biomass for key zooplankton groups (e.g. Appendicularians, Chaetognaths, Cladocerans, Copepods, Decapods, Fish eggs, Gelatinous organisms and Pteropods) in the North-Atlantic Ocean and Shelf Seas.

Sources: re-analyse key historical zooplankton samples using an already established network of bench-top imaging systems (i.e. ZooScan) in Europe, and potentially U.S.A. and Canada
Supports: WP4 – Trophic Flows
Responsible: CNRS (GORSKY)

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (300K €)

Activity 6: Catch and effort of North Atlantic fisheries.

Sources: paper publications & reports from EU, U.S.A. and Canada identified by ICES Workshop on historical data on fisheries and fish.
Supports: WP5 – Living Resources
Responsible: ICES (HOLSWORTH)

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (300K €)

Activity 7: Spatially explicit estimates of stocks sizes, structure, biomass and diet of Tuna in the North Atlantic.

Sources: ICCAT database and Trawl & acoustics surveys from ICES, DTU and MRI-HAFRO
Supports: WP5 – Living Resources
Responsible: CLS (LEHODEY)

Data Archaeology

Rescue and consolidate historical and recent data
Work done by scientific partners (300K €)

Activity 8: Spatially explicit estimates of stocks sizes, structure, biomass and diet of Herring, blue Whiting and Mackerel in the North Atlantic.

Sources: Trawl and acoustics data from ICES, IFREMER, CEFAS, IMI, MRI-HAFRO,Tecnalia-AZTI
Supports: WP5 – Living Resources
Responsible: IMR (HUSE)

Data Safeguarding

QA/QC and archive data

Following recommendations of IMBER Data Management Group, UNI-HB will hire a recent PhD in biological oceanography to be trained as data curator for EURO-BASIN.

<u>Activities</u>

1. Historical data (data archaeology activities)
2. New observational data (cruises)
3. New experimental data (lab & cruises)
4. New ecosystem parameters & proxies for fisheries management from retrospective analyses and modelling done in WP2-6

Data Safeguarding

In support to integration of long-term observations, partner institutions commit to archive all data relevant to EURO-BASIN at the NODC designated by IODE for their country and/or to one of the WDCs established by ICSU, notably WDC-MARE in Europe.

Universität Bremen

AWI

PANGAEA

Current projects

	ASOF-N	Arctic-Subarctic Ocean Flux Array for European Climate: North
	CARBOOCEAN	Marine carbon sources and sinks assessment
	CoralFISH	Ecosystem based management in the deep waters of Europe and beyond
	DeRidge	The German Section of InterRidge (SPP1144)
EPOCA	EPOCA	European Project on OCean Acidification
	EUR-OCEANS	European Network of Excellence for Ocean Ecosystems Analysis
	HERMIONE	Hotspot Ecosystem Research and Man's Impact on European Seas
hypox	HYPOX	In situ monitoring of oxygen depletion in hypoxic ecosystems
images	IMAGES	International Marine Global Change Study
OASIS	OASIS	OceAnic Seamounts: an Integrated Study

Data Publication, Access & Dissemination

Data Publication by PANGAEA®

1. Fully citable datasets (doi registration)
2. Supplementary datasets linked to journal publishers

Access & Dissemination

1. PANGAEA® Google-like search engine (public)
2. PANGAEA® Advanced Data Warehouse (password)
3. OBIS (presence/absence & abundance data)
4. NMFS-COPEPOD (zooplankton data)
5. MegX (genomics)

Data Publication by PANGAEA®

1. Fully citable datasets (doi registration)

PANGAEA®
Publishing Network for Geoscientific & Environmental Data

You are not logged in (LOG IN)

Always quote citation when using data!

Data Description

Citation: **Marie, Dominique (2004):** Concentration of phytoplankton and bacteria at bottle station PROSOPE_orp059. doi:10.1594/PANGAEA.142293

Reference(s): **Marie, Dominique; Brussaard, C; Partensky, Frédéric; Vaulot, D (1999):** Flow cytometric analysis of phytoplankton, bacteria and viruses. *In: Current Protocols in Cytometry, John Wiley & Sons, Inc*, 11.11.1-11.11.15

Project(s): **Joint Global Ocean Flux Study** (JGOFS)

Biogeochemical Process

Coverage: *West:* 21.9650 * *East:* 21.9

Date/Time Start: 1999-09-2

Minimum DEPTH, water: 7

Event(s): **PROSOPE_orp059** (MIO5

PROSOPE * *Basis:* T

Further details: http://store.pangaea.de/Pro

Parameter(s):

#	Name	Short Na
1	DEPTH, water	Depth wa
2	Prochlorococcus	Prochlor
3	Synechococcus	Synecho
4	Picoeukaryotes	PEuk
5	Bacteria	Bact
6	Bottle number	Bottle

Size: 67 data points

Download Data

Download dataset as tab-delimited text (use

View dataset as HTML

Contact

Data

Download dataset as tab-delimited text *(use the following character encoding:* ISO-8859-1: ISO

mpaign:

1 Depth water [m]	2 Prochlorococcus [#/ml]	3 Synechococcus [#/ml]	4 PEuk [#/ml]	5 Bact [#/ml]	6 Bottle
7		15159	1596	573296	19
17	40054	12383	1191	635425	17
32		5046	1447	651730	16
42	88326	4630	1565	656630	15
50	125517	4854	4806	586674	14
60	148660	4987	1255	469402	13
69	165571	4304	1388	665004	12
85	76087	2702	849	530102	11
90	64035	3348	459	464102	10
99	47022	497	838	388261	8
110	41891	171	1137	358050	7
120	19341		732	377261	5

Data Publication by PANGAEA®

2. Supplementary datasets linked to journal publishers

PANGAEA®
Publishing Network for Geoscientific & Environmental Data

Data Description RIS BIBTEX

Citation: Wendler, I et al. (2002): Abundances of dinoflagellate cysts in sediment trap MST-9 (Appendix 1). doi:10.1594/PANGAEA.714599

Supplement to: **Wendler, Ines; Zonneveld, Karin A F; Willems, Helmut (2002):** Production of calcareous dinoflagellate cysts in response to monsoon forcing off Somalia: a sediment trap study. *Marine Micropaleontology*, **46(1-2)**, 1-11, doi:10.1016/S0377-8398(02)00049-X

Reference(s): **Wendler, Ines (2002):** Production and preservation of calcareous dionoflagellate cysts in the modern Arabian Sea. *Berichte, Fachbereich Geowissenschaften, Universität Bremen*, **190**, 117 pp, urn:nbn:de:gbv:46-diss000002749

Abstract: To study the ecology of calcareous dinoflagellates we examined the impact of the SW and NE monsoons on cyst formation using sediment trap material, collected at 1032 m water depth, off Somalia from June 1992 to February 1993. The results do not confirm the relationship between cyst production and lower nutrient concentrations, as highest cyst fluxes were recorded during late SW monsoon under the relatively nutrient-rich and less agitated conditions of mature upwelled water. Lowest cyst fluxes were found under strongly stratified, nutrient-depleted surface waters during the inter-monsoon. Although all of the studied species seem to prefer a stratified water column, an elevated concentration of nutrients appears to be necessary to maintain high cyst production. Comparison of the mean cyst flux to the sediment trap with that into the underlying surface sediments reveals a loss of 81-96%, which can be attributed to calcite dissolution. The relatively small spheres of Thoracosphaera heimii are affected more than the cysts of the other species.

Project(s): **Netherlands Indian Ocean Programme** (NIOP)

Coverage: *West:* 53.5667 * *East:* 53.5667 * *South:* 10.7167 * *North:* 10.7167

Date/Time Start: 1992-06-07T00:00:00 * *Date/Time End:* 1993-02-14T00:00:00

Minimum DEPTH, water: 1032.0 m * *Maximum DEPTH, water:* 1032.0 m

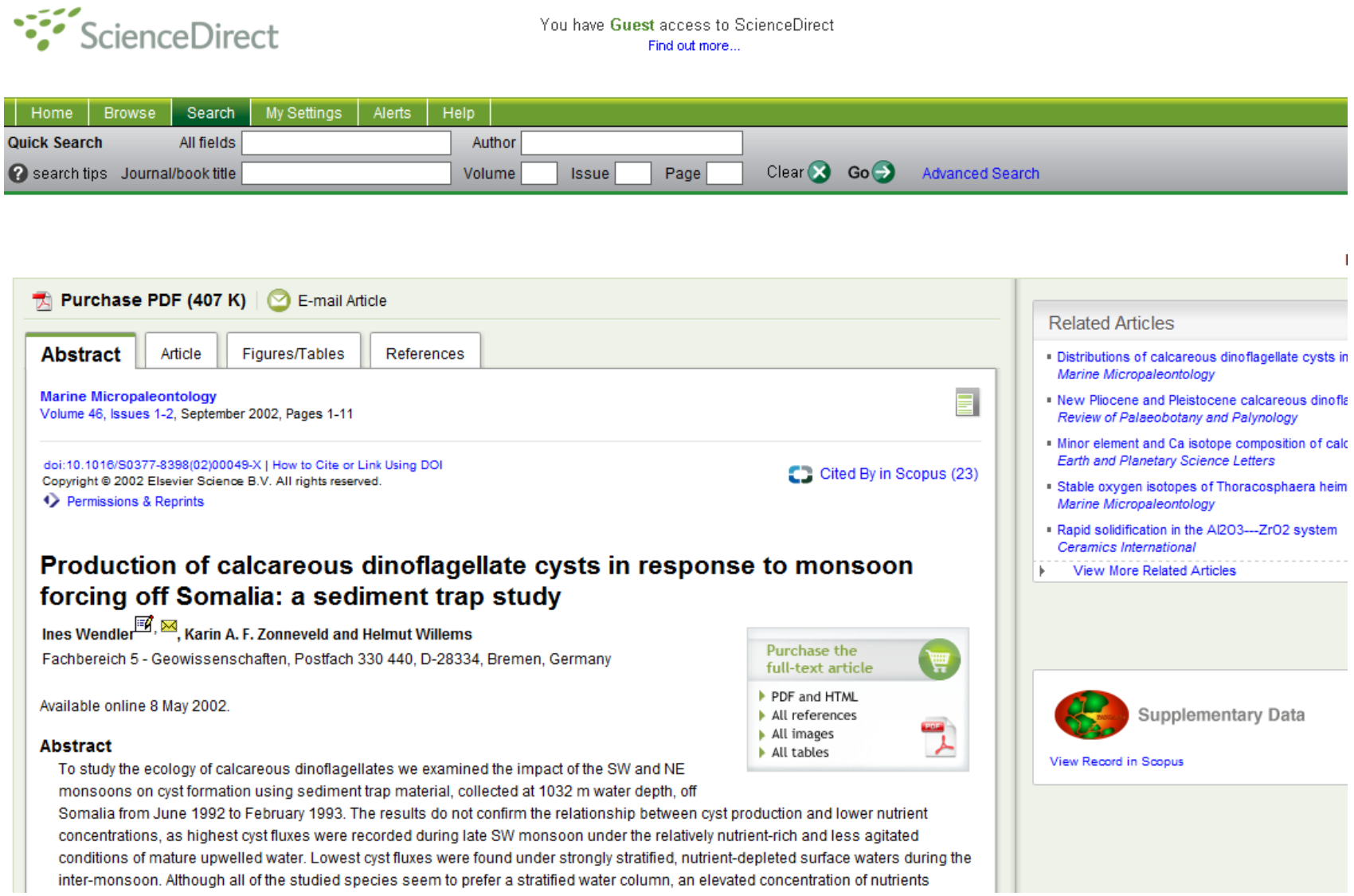
Event(s): **MST-9** (915) * *Latitude:* 10.7167 * *Longitude:* 53.5667 * *Elevation:* -4059.0 m * *Date/Time:* 1992-06-07T00:00:00 * *Date/Time 2:* 1993-02-14T00:00:00 * *Location:* Somalia Basin * *Campaign:* NIOP-C2 * *Basis:* Tyro * *Device:* Trap * *Comment:* one mooring contains two traps, MST-9E (water depth 1030 m) and MST-9G (water depth 3045m)

Parameter(s):

#	Name	Short Name	Unit	Principal Investigator	Method	Comment
1	DATE/TIME	Date/Time				Geocode
2	DEPTH, water	Depth water	m			Geocode
3	Number	No		Wendler, Ines		
4	Total flux per day	Flux tot	mg/m^2/day	Wendler, Ines		mass flux
5	Mass	Mass	mg	Wendler, Ines		sediment
6	Volume	Vol	ml	Wendler, Ines		water
7	Split	Split	#	Wendler, Ines		Âµl
8	Thoracosphaera heimii	T. heimii	#	Wendler, Ines		
9	Leonella granifera	L. granifera	#	Wendler, Ines		

Data Publication by PANGAEA®

2. Supplementary datasets linked to journal publishers



Data Publication by PANGAEA®

2. Supplementary datasets linked to journal publishers

New EU proposal submitted yesterday (!)

OpenOCEANS - Pilot framework for publication and Open Access to scientific information in Ocean Sciences

- Linking journal publications, data and digital collections of plankton
- Registration & Cross referencing using persistent identifiers (e.g. doi)
- Publication (synchronised peer review)
- Bibliometrics (Citation index for data and collections)

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UPMC PARIS UNIVERSITAS

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THOMSON REUTERS

Copernicus.org
Meetings & Open Access Publications

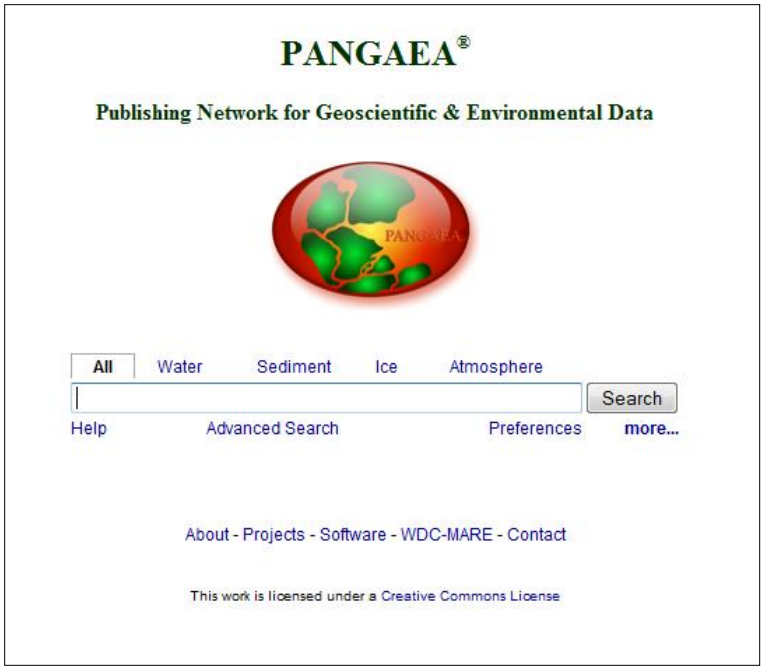
VLIZ

WoRMS
World Register of Marine Species

DTU

Access & Dissemination

1. PANGAEA® Google-like search engine (public)

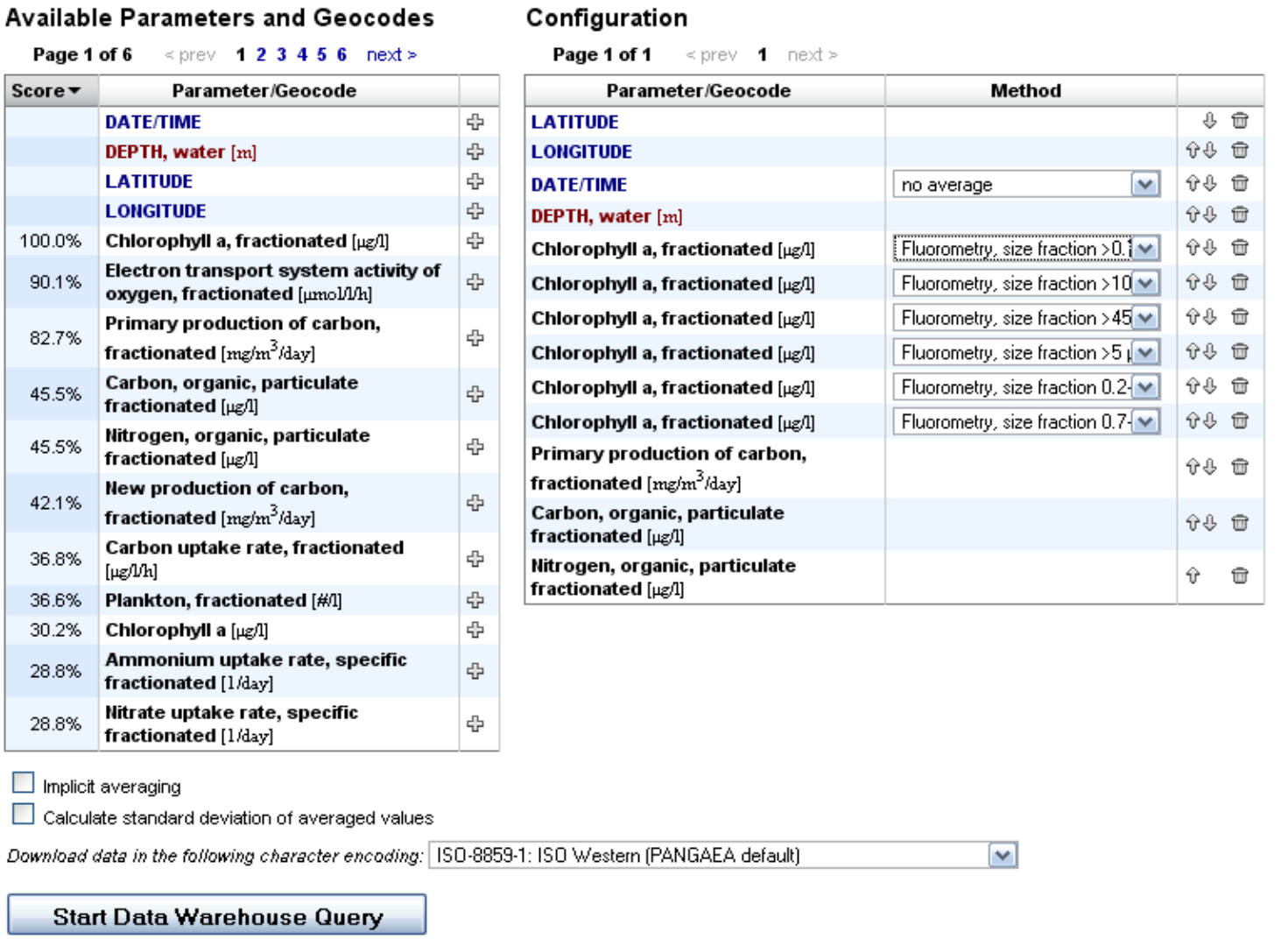


NEW SEARCH FEATURE

e.g. http://doi.pangaea.de/10.1594/PANGAEA.131744

Access & Dissemination

2. PANGAEA® Advanced Data Warehouse (password access)



http://doi.pangaea.de/10.1594/PANGAEA.131744

Networking & Integration

1. EURO-BASIN will use the first prototypes of data harvesters developed by SeaDataNet for NODCs and by PANGAEA® for WDCs.

2. EURO-BASIN “Data Management Advisory Group” including US and Canadian BASIN data managers

3. Publish consolidated datasets in the online, open access, peer reviewed journal Earth Systems Science Data (ESSD) and thereby ensure maximum knowledge dissemination and scientific outputs.

Networking & Integration

Compilation of ozonesonde profiles from the Antarctic Georg-Forster-Station from 1985 to 1992

G. König-Langlo and H. Gernandt

Alfred Wegener Institute for Polar and Marine Research, Bussestraße 24, 27570 Bremerhaven, Germany

Received: 29 July 2008 – Accepted: 5 September 2008 – Published: 22 September 2008

Correspondence to: G. König-Langlo (gert.koenig-langlo@awi.de)

Published by Copernicus Publications.

Data coverage and parameter measured

Repository-Reference: doi:10.1594/PANGAEA.547983
Available at: http://dx.doi.org/10.1594/PANGAEA.547983
Coverage: East: 11.8300; South: –70.7700
Location Name: Georg-Forster-Station, Antarctica
Date/Time Start: 1985-05-22T05:19:00
Date/Time End: 1992-01-29T01:19:00

Networking & Integration

PANGAEA®
Publishing Network for Geoscientific & Environmental Data

Data Description RIS BibTeX

Citation: König-Langlo, G; Gernandt, H (2008): 426 ozonesonde profiles from Georg-Forster-Station, *Alfred Wegener Institute for Polar and Marine Research, Bremerhaven*, doi:10.1594/PANGAEA.547983,

Supplement to: **König-Langlo, Gert; Gernandt, Hartwig (2008):** Compilation of ozonesonde profiles from the Antarctic Georg-Forster-Station from 1985 to 1992, *Earth System Science Data*, **1**, 1-13, sref:essdd/2008-1-1

Abstract: On 22 May 1985 the first balloon-borne ozonesonde was successfully launched by the staff of Georg-Forster-Station (70°46' S, 11°41' E). The following weekly ozone soundings mark the beginning of the continuous investigation of Germany to study the vertical ozone distribution in the southern hemisphere.

In 1985 these ozone soundings have been the only record showing the change of vertical ozone distribution in the southern polar stratosphere in September and October. The regular ozone soundings from 1985 until 1992 are a valuable reference data set since the chemical ozone loss became a significant feature in the southern polar stratosphere.

The balloon-borne soundings were performed at the upper air sounding facility of the neighbouring station Novolazarevskaya, just 2 km apart from Georg-Forster-Station. Till 1992, ozone soundings were taken without interruption. Afterwards, the ozone sounding program was moved to Neumayer-Station (70°39' S, 8°15' W) 750 km further west.

Project(s): **Meteorological Long-Term Observations @ AWI** (AWI_Meteo)

Coverage: *West:* 11.8300 * *East:* 11.8300 * *South:* -70.7700 * *North:* -70.7700

Date/Time Start: 1985-05-22T05:19:00 * *Date/Time End:* 1992-01-29T01:19:00

Comment: Attached to Russian radio sondes (type RKS-5) the ozone sondes (type OSE) were carried by balloons to heights up to 35 km. During the flight the measured ozone concentrations as well as the standard meteorological measurements were transmitted to the ground. All 426 soundings at the mean pressure levels and significant heights from these flights between 1985 and 1992 are archived in this dataset.

The ozone measurements were achieved by a small electrically driven gas sampling pump which forces ambient air through a sensing solution of an electrochemical cell which generated an electrical current proportional to the mass flow rate of ozone. According to this principle (Brewer sonde), the sondes were developed and produced at the Akademiewerkstätten in East Berlin.

Size: 426 datasets

Download Data

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

Suivant Précédent Surligner tout Respecter la casse

WP1 BUDGET

"Develop methods to consolidate and integrate long-term observations from European and international databases for modelling and prediction of the Atlantic Ocean ecosystem and related services."

Full time data curator: 200K €
Data archaeology: 300K €
Total: 500K €

Thank you for your kind attention