An introduction to the Data Library
PANGAEA® - Part II Submitting data

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hdl:10013/epic.44264
Data model

**where?**
- Latitude/Longitude
- Air
- Ice
- Water
- Sediment

**when?**
- Date/Time or geol. Age

**what?**
- Parameter [unit]
- numerical
- text
- object

**how?**
- Method

**who?**
- Investigator/Reference
Data in PANGAEA

**PANGAEA**
Data Publisher for Earth & Environmental Science

### Data Description

**Citation:** Koizumi, I.; Yamamoto, H (2010): Vertical distribution of diatoms in North Pacific sediments. doi:10.1594/PANGAEA.776386.


**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 (T0). The T0-derived annual SSTs 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 interglacially. After the last deglaciation, annual SSTs declined markedly during Heinrich and Bond events in the northern North Atlantic, when ice-rafted debris transported by icebergs was abundant. Wavelet analyses of the record of oceanic diatom abundances show significant periodicity 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: 146.095867
- 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):**
- **C08-115A**
  - Latitude: 38.181910
  - Longitude: 143.331910
  - Date/Time Start: 1999-06-07 10:00:00
  - Date/Time End: 1999-06-26 23:15:00
  - Elevation: -26.00 m
  - Recovery: 356.42 m
  - Penetration: 702.6 m
  - Location: North Pacific Ocean
  - Campaign: Leg168
  - Basis: Joides Resolution
  - Device: Drilling
  - Comment: 76 cores; 722.8 m cored; 0 m drilled; 78.4% recovery

- **MD01-2421** (MD012421)
  - Latitude: 36.023000
  - Longitude: 141.780000
  - Date/Time: 2001-05-16 04:33:00
  - Elevation: -226.00 m
  - Recovery: 15.62 m
  - Location: Japen Trench
  - Campaign: MD122
  - Basis: Marion Dufresne
  - Device: Piston corer

- **MR00-05-2PC**
  - Latitude: 49.000000
  - Longitude: 146.000000
  - Elevation: -5177.00 m
  - Location: Northwest Pacific
  - Device: Piston corer

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### Download Data

Download ZIP file containing all datasets as tab-delimited text.

**Size:** 7 datasets

### Datasets listed in this Collection

2. Koizumi, I.; Yamamoto, H (2010): (Table A2) Diatom abundance in sediment core MR02-03-2. doi:10.1594/PANGAEA.776118
Useless data
Submit Data

Data provided by author/principle investigator

During manuscript preparation or submission, data can be password protected until paper is published.