Microbial counts, Picophytoplankton from the R/V Melville IronEx II cruise in the Equatorial Pacific Ocean in 1995 (IronEx II project)

Website: https://www.bco-dmo.org/dataset/3446
Version: 10 March 2011
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Project
» Iron Experiment II (IronExII)

Program
» Iron Synthesis (FeSynth)

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Dataset Description

Microbial Counts - Picophytoplankton

Data were normalized with the following values:

```
#  values used for normalizing from "out" by group
#  group   fals(rel)   redFL(rel)   FL/fals ratio
#  group1  0.09        0.62         7.19
#  group2  0.92        0.61         6.84
#
```

Data Processing Description

BCO-DMO Processing Notes
Prepared by WHOI OCB-DMO from original multi sheet file :FeEx2_summary01-(c).xls contributed by Doug Mackie
Sheets "pico data", IN (pico), OUT (pico), IN (pico-norm), OUT (pico_norm) used to prepare this dataset.

Changes made to original file:
- Data from the 5 individual sheets combined into one
- Parameter names extensively edited/modified to conform to BCO-DMO convention
- date manually inserted from Cast Log

- HHMM time calculated from supplied decimal hours

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Data Files

File
Microbial_Pico.csv (Comma Separated Values (.csv), 17.59 KB) MD5:c313ee8825d2e436196497fc2fa18a85 Primary data file for dataset ID 3446

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Parameters

Parameter	Description	Units
filename	filename	text
description	description	text
cruise	cruise	text
experiment	experiment	text
date	date (GMT)	yyyymmdd
time	time (GMT)	hhmm
time_decimal	time decimal (GMT)	decimal hours
yrday	yrday	integer
lon	Longitude (West is negative)	decimal degrees
lat	Latitude (South is negative)	decimal degrees
cast	cast	integer
depth	depth	meters
fraction	fraction	text

Patch	Location relative to the Patch	text
experiment_day	experiment day	integer
time_of_day	time of day	text
beads_to_Fals	beads to Fals	ratio
redFL	redFL	(tbd)
orangeFL	orangeFL	(tbd)
group1_name	group1 name	text
group1_conc	group1 conc	cells/ml
group1_conc_mean	group1 conc mean	cells/ml
group1_conc_stddev	group1 conc stddev	cells/ml
group1_fals	group1 fals	relative
group1_fals_mean	group1 fals mean	(tbd)
group1_fals_stddev	group1 fals stddev	(tbd)
group1_redFL	group1 redFL	relative
group1_redFL_mean	group1 redFL mean	(tbd)
group1_redFL_stddev	group1 redFL stddev	(tbd)
group1_FL_to_fals_ratio	group1 FL to fals ratio	ratio
group1_FL_to_fals_ratio_mean	group1 FL to fals ratio mean	(tbd)
group1_FL_to_fals_ratio_stddev	group1 FL to fals ratio stddev	(tbd)

group1_fals_norm	group1 fals norm	(tbd)
group1_fals_norm_mean	group1 fals norm mean	(tbd)
group1_fals_norm_stddev	group1 fals norm stddev	(tbd)
group1_redFL_norm	group1 redFL norm	(tbd)
group1_redFL_norm_mean	group1 redFL norm mean	(tbd)
group1_redFL_norm_stddev	group1 redFL norm stddev	(tbd)
group1_FL_norm_to_fals_norm_ratio	group1 FL norm to fals norm ratio	(tbd)
group1_FL_norm_to_fals_norm_ratio_mean	group1 FL norm to fals norm ratio mean	(tbd)
group1_FL_norm_to_fals_norm_ratio_stddev	group1 FL norm to fals norm ratio stddev	(tbd)
group_2name	group 2name	(tbd)
group2_conc	group2 conc	cells/ml
group2_conc_mean	group2 conc mean	cells/ml
group2_conc_stddev	group2 conc stddev	cells/ml
group2_fals	group2 fals	relative
group2_fals_mean	group2 fals mean	(tbd)
group2_fals_stddev	group2 fals stddev	(tbd)
group2_orangeFL	group2 orangeFL	relative
group2_orangeFL_mean	group2 orangeFL mean	(tbd)
group2_orangeFL_stddev	group2 orangeFL stddev	(tbd)

group2_FL_to_fals_ratio	group2 FL to fals ratio	ratio
group2_FL_to_fals_ratio_mean	group2 FL to fals ratio mean	(tbd)
group2_FL_to_fals_ratio_stddev	group2 FL to fals ratio stddev	(tbd)
group2_fals_norm	group2 fals norm	(tbd)
group2_fals_norm_mean	group2 fals norm mean	(tbd)
group2_fals_norm_stddev	group2 fals norm stddev	(tbd)
group2_orangeFL_norm	group2 orangeFL norm	(tbd)
group2_orangeFL_norm_mean	group2 orangeFL norm mean	(tbd)
group2_orangeFL_norm_stddev	group2 orangeFL norm stddev	(tbd)
group2_FL_norm_to_fals_norm_ratio	group2 FL norm to fals norm ratio	(tbd)
group2_FL_norm_to_fals_norm_ratio_mean	group2 FL norm to fals norm ratio mean	(tbd)
group2_FL_norm_to_fals_norm_ratio_stddev	group2 FL norm to fals norm ratio stddev	(tbd)

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Instruments

Dataset-specific Instrument Name	CTD profiler
Generic Instrument Name	CTD - profiler
Generic Instrument Description	The Conductivity, Temperature, Depth (CTD) unit is an integrated instrument package designed to measure the conductivity, temperature, and pressure (depth) of the water column. The instrument is lowered via cable through the water column. It permits scientists to observe the physical properties in real-time via a conducting cable, which is typically connected to a CTD to a deck unit and computer on a ship. The CTD is often configured with additional optional sensors including fluorometers, transmissometers and/or radiometers. It is often combined with a Rosette of water sampling bottles (e.g. Niskin, GO-FLO) for collecting discrete water samples during the cast. This term applies to profiling CTDs. For fixed CTDs, see https://www.bco-dmo.org/instrument/869934.

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Deployments

IronExII_MV

Website	https://www.bco-dmo.org/deployment/57830
Platform	R/V Melville
Start Date	1995-05-13
End Date	1995-06-21
Description	Cruise Summary: 5/14/95 Depart Papeete, Tahiti 5/14/95 to 5/23/95 Transit & Test stations 5/23/95 to 5/29/95 Survey for Fe release 5/29/95 to 5/30/95 Fe release #1 5/30/95 to 6/1/95 In & out sampling 6/1/95 to 6/1/95 Fe release #2 6/1/95 to 6/5/95 In & out sampling 6/5/95 to 6/5/95 Fe release #3 6/6/95 to 6/8/95 In & out sampling 6/8/95 to 6/9/95 Control patch (SF6 only), 2nd Fe patch release (0.4 nM Fe) 6/9/95 to 6/15/95 In & out sampling of all 3 patches 6/15/95 to 6/21/95 Transit to Acapulco, Mexico

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Project Information

Iron Experiment II (IronExII)

Coverage: Equatorial Pacific Ocean

One of two (see IronEx I Oct/Nov 1993) small scale iron fertilization experiments conducted in the Equatorial Pacific Ocean.

Summary:

5/14/95 Depart Papeete, Tahiti

5/14/95 to 5/23/95 Transit & Test stations

5/23/95 to 5/29/95 Survey for Fe release

5/29/95 to 5/30/95 Fe release #1

5/30/95 to 6/1/95 In & out sampling

6/1/95 to 6/1/95 Fe release #2

6/1/95 to 6/5/95 In & out sampling

6/5/95 to 6/5/95 Fe release #3

6/6/95 to 6/8/95 In & out sampling

6/8/95 to 6/9/95 Control patch (SF6 only), 2nd Fe patch release (0.4 nM Fe)

6/9/95 to 6/15/95 In & out sampling of all 3 patches

6/15/95 to 6/21/95 Transit to Acapulco, Mexico

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Program Information

Iron Synthesis (FeSynth)

Coverage: Global

The two main objectives of the Iron Synthesis program (SCOR Working Group proposal, 2005), are:
1. Data compilation: assembling a common open-access database of the *in situ* iron experiments, beginning with the first period (1993-2002; Ironex-1, Ironex-2, SOIREE, EisenEx, SEEDS-1; SOFeX, SERIES) where primary articles have already been published, to be followed by the 2004 experiments where primary articles are now in progress (EIFEX, SEEDS-2; SAGE, FeeP); similarly for the natural fertilizations S.O.JGOFS (1992), CROZEX (2004/2005) and KEOPS (2005).

2. Modeling and data synthesis of specific aspects of two or more such experiments for various topics such as physical mixing, phytoplankton productivity, overall ecosystem functioning, iron chemistry, CO2 budgeting, nutrient uptake ratios, DMS(P) processes, and combinations of these variables and processes.

SCOR Working Group proposal, 2005. "The Legacy of *in situ* Iron Enrichments: Data Compilation and Modeling".
http://www.scor-int.org/Working_Groups/wg131.htm

See also: SCOR Proceedings Vol. 42 Concepcion, Chile October 2006, pgs: 13-16 2.3.3 Working Group on The Legacy of *in situ* Iron Enrichments: Data Compilation and Modeling.

The first objective of the Iron Synthesis program involves a data recovery effort aimed at assembling a common, open-access database of data and metadata from a series of *in-situ* ocean iron fertilization experiments conducted between 1993 and 2005. Initially, funding for this effort is being provided by the Scientific Committee on Oceanic Research (SCOR) and the U.S. National Science Foundation (NSF).

Through the combined efforts of the principal investigators of the individual projects and the staff of Biological and Chemical Oceanography Data Management Office (BCO-DMO), data currently available primarily through individuals, disparate reports and data agencies, and in multiple formats, are being collected and prepared for addition to the BCO-DMO database from which they will be freely available to the community.

As data are contributed to the BCO-DMO office, they are organized into four overlapping categories:
1. Level 1, basic metadata
(e.g., description of project/study, general location, PI(s), participants);
2. Level 2, detailed metadata and basic shipboard data and routine ship's operations
(e.g., CTDs, underway measurements, sampling event logs);
3. Level 3, detailed metadata and data from specialized observations
(e.g., discrete observations, experimental results, rate measurements) and
4. Level 4, remaining datasets
(e.g., highest level of detailed data available from each study).

Collaboration with BCO-DMO staff began in March of 2008 and initial efforts have been directed toward basic project descriptions, levels 1 and 2 metadata and basic data, with detailed and more detailed data files being incorporated as they become available and are processed.

Related file

Program Documentation

The Iron Synthesis Program is funded jointly by the Scientific Committee on Oceanic Research (SCOR) and the U.S. National Science Foundation (NSF).

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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-9217518
Office of Naval Research (ONR)	N00014-94-10125

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