Phytoplankton carbon content by type (w/ POC new) 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/3438
Version: 16 December 2009
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Project
» Iron Experiment II (IronExII)

Program
» Iron Synthesis (FeSynth)

Contributors	Affiliation	Role
Coale, Kenneth H.	Moss Landing Marine Laboratories (MLML)	Principal Investigator
Johnson, Kenneth S.	Moss Landing Marine Laboratories (MLML)	Co-Principal Investigator
Armstrong, Evelyn	University of Otago	Contact
Gegg, Stephen R.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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Dataset Description

Phytoplankton carbon content by type (w/ POC_new)

Data Processing Description

BCO-DMO Processing Notes
Prepared by WHOI OCB-DMO from original file:FEX2CARB.XLS, Sheet 2 contributed by Doug Mackie

Changes made to original file:
- Extensive editing to remove blank lines, organize data (stations, etc) into rows/columns
- Parameter names edited to conform to BCO-DMO convention
- date, time, event, cast, lat, lon manually inserted from Cast Log using event in Cast Log

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Data Files

File
Carb_POC_New.csv(Comma Separated Values (.csv), 4.76 KB) MD5:eb18d06733f89e1427eb1a3ab5786957 Primary data file for dataset ID 3438

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Parameters

Parameter	Description	Units
STATION	Station id	text
event	Unique event number (Generated by BCO-DMO)	YYYYMMDDHHMM
date	Station date (GMT)	YYYYMMDD
time	Station time (GMT)	HHMM
yrday	year day	int
lon	Station longitude (West is negative)	decimal degrees
lat	Station latitude (South is negative)	decimal degrees
Patch	Station location relative to the Patch (I; O; I/O)	In/Out
depth	Station depth	meters
TIME_sta	Station time (GMT)	dec days
Del_T	Delta time	hrs
SF6	SF6	text
POC	POC	µM C
POC_new	POC new	µM C
TOTAL_PPC_plusHEt	TOTAL PPC plusHEt	µM C

TOTAL_PPC_plusHEt_new	TOTAL PPC plusHEt new	µM C
PHYTO_TOTAL	PHYTO TOTAL	µM C
PHYTO_Synoc_new	PHYTO Synoc new	µM C
PHYTO_Synoc	PHYTO Synoc	µM C
PHYTO_RFP_new	PHYTO RFP new	µM C
PHYTO_RFP	PHYTO RFP	µM C
PHYTO_Prymn	PHYTO Prymn	µM C
PHYTO_Dino	PHYTO Dino	µM C
PHYTO_Pen	PHYTO Pen	µM C
PHYTO_Cen	PHYTO Cen	µM C
PHYTO_Phaeo	PHYTO Phaeo	µM C
HETERO_TOTAL	HETERO TOTAL	µM C
HETERO_H_Flag	HETERO H Flag	µM C
HETERO_H_Dino	HETERO H Dino	µM C
HETERO_H_Ciliates	HETERO H Ciliates	µM C
HETERO_A_Ciliates	HETERO A Ciliates	µM C

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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
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