POC data 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/3152
Version: 02 March 2011
Version Date: 2011-03-02

Project
» Iron Experiment II (IronExII)

Program
» Iron Synthesis (FeSynth)

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Dataset Description

IronExII POC Data

Data Processing Description

BCO-DMO Processing Notes
Generated from original spreadsheet: FeX2 edited POC.XLS
Original file was downloaded on 16June2008 from http://www.mbari.org/sofex/IronEx_II.htm

Changes made to original file:
Parameter headers edited to conform to BCO-DMO convention
date, time, event, lat, lon, Patch manually inserted from Cast Log using event in Cast Log
Decimal places padded to 1,2 places as appropriate for consistency
Original station column broken out into Description_Event and Description_Survey columns
nd added for no data values and blank fields

02 March 2011
Edits to the 10June2009 version of these data made based on feedback from
Jim Christian, biological/chemical oceanographer from Canada (Jim.Christian@ec.gc.ca)
Values for event, cast and DEPTH corrected for:
TM ROSETTE CAST 100-107 6/1/95 (YD 152) 0900-1400 GMT; TRANSECT I DAY 3 DEPTH = 15.5 Meters (avg.)
TM ROSETTE CAST 110-121 6/2/95 (YD 153) 0100-0700 GM; TRANSECT II DAY 4 DEPTH = 15.8 Meters

(avg.)
TM ROSETTE CAST 248-263 6/6/95 (YD 158) 1155-1945 GMT; TRANSECT III DAY 9 DEPTH = 15.2 Meters (avg.) 0555-1245 LOCAL
individual cast number (“cast”) was in the depth column of the original data and was carried over as such “cast” is now correct in the “cast” field
the average depth as given in the DESCRIPTION_SURVEY is the depth
event, cast, date, yrday, time, lon, lat fields corrected with data from cast log

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Data Files

File
POC.csv (Comma Separated Values (.csv), 24.27 KB) MD5:5e714d5e0f0ed6d54d3c0287365b4312 Primary data file for dataset ID 3152

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Parameters

Parameter	Description	Units
date	Date UTC	YYYYMMDD
time	Time UTC	HHMM
lat	latitude, negative denotes South	decimal degrees
lon	longitude, negative denotes West	decimal degrees
event	Unique event number (Generated by BCO-DMO)	YYYYDAYHHMM
DESCRIPTION_EVENT	free field text description of event	text
yrday	Day of year	integer
Patch	Patch In/Out Flag Refers to sampling in ("I") or out ("O") of the established Iron enriched patch, based on SF6 measurements	text
cast	Cast id	integer
DESCRIPTION_SURVEY	Free text field description of survey	text

DEPTH	Depth in meters	meters
POC	POC	uM
POC_Avg	Average POC	uM
PN	PN	uM
C_to_N	Ratio of C to N	mol
DOC	DOC	uM
PPC	PPC	uM
O2	O2	uM
Chla	Chl-a	mg/m3
NH4	NH4	uM
PO4	PO4	uM
SiO4	SiO4	uM
NO3	NO3	uM

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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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