

Variability estimates from R/V Columbus IronEx I cruise in the Equatorial Pacific Ocean in 1993 (IronEx I project)

Website: <https://www.bco-dmo.org/dataset/3158>

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Project

» [Iron Experiment I](#) (IronExI)

Program

» [Iron Synthesis](#) (FeSynth)

| Contributors | Affiliation | Role |
|-----------------------------------|--|---------------------------|
| Coale, Kenneth H. | Moss Landing Marine Laboratories (MLML) | Principal Investigator |
| Johnson, Ken | Monterey Bay Aquarium Research Institute (MBARI) | Co-Principal Investigator |
| Mackie, Doug | University of Otago | Contact |
| Gegg, Stephen R. | Woods Hole Oceanographic Institution (WHOI) | BCO-DMO Data Manager |

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Dataset Description

IronExI - Variability estimates Inside/Outside the patch

Data Processing Description

BCO-DMO Processing Notes

Variability estimates data were culled out of the original FeX 1 CTD,Nuts,SF6.xls file and a separate dataset was generated.

Original file was downloaded on 16June2008 from http://www.mbari.org/sofex/IronEx_I.htm

BCO-DMO Edits

- Station, event, date, time, lat, lon. depth and Patch (in/Out) were from the station list
- Parameter names modified to conform to BCO-DMO convention

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Data Files

| File |
|--|
| Variability_Est.csv (Comma Separated Values (.csv), 2.75 KB) MD5:3a47d3f856b804e97cb5480da097d883 Primary data file for dataset ID 3158 |

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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 |
| Patch | Patch In/Out Flag Refers to sampling in ("I") or out ("O") of the established Iron enriched patch, based on SF6 measurements | text |
| orig_event_number | Event number from original log file Preserved for reference | YYYY_DDD |
| Station | Station id | text |
| depth | Sample depth in meters | meters |
| comments | Comments field | text |
| Var1 | Variability estimate 1 | (tbd) |
| Var2 | Variability estimate 2 | (tbd) |

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Deployments

CI_IronExI

| | |
|-------------------|---|
| Website | https://www.bco-dmo.org/deployment/57829 |
| Platform | R/V Columbus Iselin |
| Start Date | 1993-10-11 |
| End Date | 1993-11-07 |

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Project Information

Iron Experiment I (IronExI)

Coverage: Equatorial Pacific Ocean

One of two (see IronExII May/June 1995) small scale iron fertilization experiments conducted in the Equatorial Pacific Ocean.

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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, SOIRE, 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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