

Fast Repetition Rate Fluorometer (FRRF) data from RVIB Nathaniel B. Palmer NBP0103, NBP0202, NBP0204 in the Southern Ocean from 2001-2002 (SOGLOBEC project)

Website: <https://www.bco-dmo.org/dataset/3626>

Version: 2012-02-22

Project

» [U.S. GLOBEC Southern Ocean](#) (SOGLOBEC)

Program

» [U.S. GLOBal ocean ECosystems dynamics](#) (U.S. GLOBEC)

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Dataset Description

none provided.

Methods & Sampling

none provided.

Data Processing Description

none provided.

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Data Files

File**frrf_vernet.csv**(Comma Separated Values (.csv), 1.50 MB)

MD5:bcab217ca984df2d3780a4f354971bdc

Primary data file for dataset ID 3626

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Parameters

Parameter	Description	Units
cruiseid	cruise identifier (ie. NBP0103)	alphanumeric
event	event number	alphanumeric
cast	ctd cast number	integer
year	year in GMT time	YYYY
yearday	year-day based on julian calendar with hour as a fraction of a day	YYY.yyy
hour_gmt	GMT hour	HH
minute_gmt	GMT minute	MM
lat	latitude (negative = South)	degrees
lon	longitude (negative = West)	degrees
xgrid	distance from the grid origin (71 S; 72 W) along x-axis	km
ygrid	distance from the grid origin (71 S; 72 W) along y-axis	km
station	station number or description	alphanumeric
satfl_no	number of saturation flashes	integer
satfl_len	saturation flash length	instrument units
satfl_dur	saturation flash duration	instrument units
decfl_no	number of decay flashes	integer
decfl_len	decay flash length	instrument units
decfl_dur	decay flash duration	instrument units
ave_seq	number of flashes averaged per sequence	integer
cal_file	calibration filename	alphanumeric
FRRF_date	date of data point collection; from FRRF instrument	DD:MM:YY
FRRF_time	time of data point collection; from FRRF instrument	HH:MM:SS
FRRF_depth	depth of data point collection; from FRRF instrument	meters
FRRF_PAR	photosynthetically available radiation; from FRRF instrument	microMol quanta m ⁻² s ⁻¹
FoD	minimum fluorescence: dark chamber (all reaction centers open)	relative
FmD	maximum fluorescence: dark chamber (all reaction centers open)	relative
FvD	variable fluorescence: dark chamber ($F_v = F_m - F_o$)	relative
Fv_FmD	F_v/F_m : dark chamber (maximum quantum yield of PSII)	dimensionless
SigD	functional absorption cross-section of PSII (Sigma): dark chamber	Angstroms ² q ⁻¹
pD	connectivity parameter (excitation energy transfer PSII to PSI): dark chamber	dimensionless
TauD	time constant of electron transfer PSII to PSI: dark chamber	microseconds
gain	instrument gain setting	integer

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Instruments

Dataset-specific Instrument Name	Fast Repetition Rate Fluorometer
Generic Instrument Name	Fast Repetition Rate Fluorometer
Dataset-specific Description	Chelsea Instruments Fast Repetition Rate Fluorometer (FastTracka II), version 1.13, serial number 182037, FGPA version 0.1.
Generic Instrument Description	An FRRf is used for measuring the fluorescence of a sample of phytoplankton photosynthetic competency (Fv/Fm).

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Deployments

NBP0103

Website	https://www.bco-dmo.org/deployment/57636
Platform	RVIB Nathaniel B. Palmer
Report	http://globec.who.edu/so-dir/reports/nbp0103/nbp0103.html
Start Date	2001-04-24
End Date	2001-06-05

NBP0202

Website	https://www.bco-dmo.org/deployment/57641
Platform	RVIB Nathaniel B. Palmer
Report	http://globec.who.edu/so-dir/reports/nbp0202/nbp0202b.html
Start Date	2002-04-09
End Date	2002-05-21

NBP0204

Website	https://www.bco-dmo.org/deployment/57643
Platform	RVIB Nathaniel B. Palmer
Report	http://globec.who.edu/so-dir/reports/nbp0204/nbp0204b.html
Start Date	2002-07-31
End Date	2002-09-18
Description	Also see NBP0204 Cruise Data Report

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Project Information

U.S. GLOBEC Southern Ocean (SOGLOBEC)

Website: http://www.ccpo.odu.edu/Research/globec_menu.html

Coverage: Southern Ocean

The fundamental objectives of United States Global Ocean Ecosystems Dynamics (U.S. GLOBEC) Program are dependent upon the cooperation of scientists from several disciplines. Physicists, biologists, and chemists must make use of data collected during U.S. GLOBEC field programs to further our understanding of the interplay of physics, biology, and chemistry. Our objectives require quantitative analysis of interdisciplinary data sets and, therefore, data must be exchanged between researchers. To extract the full scientific value, data must be made available to the scientific community on a timely basis.

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Program Information

U.S. GLOBAL ocean ECosystems dynamics (U.S. GLOBEC)

Website: <http://www.usglobec.org/>

Coverage: Global

U.S. GLOBEC (GLOBAL ocean ECosystems dynamics) is a research program organized by oceanographers and fisheries scientists to address the question of how global climate change may affect the abundance and production of animals in the sea.

The U.S. GLOBEC Program currently had major research efforts underway in the Georges Bank / Northwest Atlantic Region, and the Northeast Pacific (with components in the California Current and in the Coastal Gulf of Alaska). U.S. GLOBEC was a major contributor to International GLOBEC efforts in the Southern Ocean and Western Antarctic Peninsula (WAP).

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Funding

Funding Source	Award
NSF Antarctic Sciences (NSF ANT)	ANT-9910175

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