Chlorophyll-a and phaeopigments, fluorometric method from R/V Thomas G. Thompson TT045, TT050, TT053 cruises in the Arabian Sea in 1995 (U.S. JGOFS Arabian Sea project)

Website: https://www.bco-dmo.org/dataset/2548
Version: final
Version Date: 2002-04-09

Project
» U.S. JGOFS Arabian Sea (Arabian Sea)

Program
» U.S. Joint Global Ocean Flux Study (U.S. JGOFS)

Contributors	Affiliation	Role
Bidigare, Robert R.	University of Hawaii (UH)	Principal Investigator
Chandler, Cynthia L.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Table of Contents

Dataset Description

Chlorophyll-a and phaeopigments, fluorometric method

Methods & Sampling

See Platform deployments for cruise specific documentation

[table of contents | back to top]

Parameters

Parameter	Description	Units
event	event number, from event log	
sta	station number, from event log	
sta_std	Arabian Sea standard station identifier	
cast	cast number, from event log	
bot	rosette bottle number	
depth_n	nominal sample depth	meters
chl_a_fluor	chlorophyll_a, fluorometric method	micrograms/liter
phaeo	phaeopigments, fluorometric method	micrograms/liter

[table of contents | back to top]

Instruments

Dataset-specific Instrument Name	Turner Design Digital 10-AU-05 Fluorometer
Generic Instrument Name	Turner Designs Fluorometer 10-AU
Dataset-specific Description	Duke's AU-10 fluorometer.
Generic Instrument Description	The Turner Designs 10-AU Field Fluorometer is used to measure Chlorophyll fluorescence. The 10AU Fluorometer can be set up for continuous-flow monitoring or discrete sample analyses. A variety of compounds can be measured using application-specific optical filters available from the manufacturer. (read more from Turner Designs, turnerdesigns.com, Sunnyvale, CA, USA)

[table of contents | back to top]

Deployments

TT045

Website	https://www.bco-dmo.org/deployment/57706
Platform	R/V Thomas G. Thompson
Start Date	1995-03-14
End Date	1995-04-10
Description	**Methods & Sampling** PI: Robert R. Bidigare of: University of Hawaii dataset: Chlorophyll-a and phaeopigments, fluorometric method dates: March 14, 1995 to April 08, 1995 location: N: 22.4825 S: 9.9988 W: 57.3032 E: 68.7474 project/cruise: Arabian Sea/TTN-045; Process cruise 2 (Spring Intermonsoon) ship: R/V Thomas Thompson Methodology note: Duke's AU-10 fluorometer. Blank=0. Calibrated by M. Latasa 3/22/95 Extraction volume: 10 mL 90% Acetone. Note: US JGOFS Data Management Office changed units from milligrams/cubic meter to micrograms/liter.

TT050

Website	https://www.bco-dmo.org/deployment/57711
Platform	R/V Thomas G. Thompson
Start Date	1995-08-18
End Date	1995-09-15
Description	**Methods & Sampling** PI: Robert R. Bidigare of: University of Hawaii dataset: Chlorophyll-a and phaeopigments, fluorometric method dates: August 18, 1995 to September 13, 1995 location: N: 22.4688 S: 9.9453 W: 57.3004 E: 68.7494 project/cruise: Arabian Sea/TTN-050; Process cruise 5 (Late SW Monsoon) ship: R/V Thomas Thompson Methodology note: Duke's AU-10 fluorometer. Calibrated by M.E. Ondrusek Extraction volume: 10 mL 90% Acetone. Note: US JGOFS Data Management Office changed units from milligrams/cubic meter to micrograms/liter.

TT053

Website	https://www.bco-dmo.org/deployment/57714
Platform	R/V Thomas G. Thompson
Start Date	1995-10-29
End Date	1995-11-26
Description	**Methods & Sampling** PI: Robert R. Bidigare of: University of Hawaii dataset: Chlorophyll-a and phaeopigments, fluorometric method dates: October 29, 1995 to November 25, 1995 location: N: 24.3302 S: 10.0823 W: 56.4858 E: 67.1666 project/cruise: Arabian Sea/TTN-053; Process cruise 6 (bio-optics) ship: R/V Thomas Thompson Methodology note: Duke's AU-10 fluorometer. Calibrated by R.R. Bidigare Extraction volume: 7 mL 90% Acetone. Note: US JGOFS Data Management Office changed units from milligrams/cubic meter to micrograms/liter.

[table of contents | back to top]

Project Information

U.S. JGOFS Arabian Sea (Arabian Sea)

Website: http://usjgofs.whoi.edu/research/arabian.html

Coverage: Arabian Sea

The U.S. Arabian Sea Expedition which began in September 1994 and ended in January 1996, had three major components: a U.S. JGOFS Process Study, supported by the National Science Foundation (NSF); Forced Upper Ocean Dynamics, an Office of Naval Research (ONR) initiative; and shipboard and aircraft measurements supported by the National Aeronautics and Space Administration (NASA). The Expedition consisted of 17 cruises aboard the R/V Thomas Thompson, year-long moored deployments of five instrumented surface buoys and five sediment-trap arrays, aircraft overflights and satellite observations. Of the seventeen ship cruises, six were allocated to repeat process survey cruises, four to SeaSoar mapping cruises, six to mooring and benthic work, and a single calibration cruise which was essentially conducted in transit to the Arabian Sea.

[table of contents | back to top]

Program Information

U.S. Joint Global Ocean Flux Study (U.S. JGOFS)

Website: http://usjgofs.whoi.edu/

Coverage: Global

The United States Joint Global Ocean Flux Study was a national component of international JGOFS and an integral part of global climate change research.

The U.S. launched the Joint Global Ocean Flux Study (JGOFS) in the late 1980s to study the ocean carbon cycle. An ambitious goal was set to understand the controls on the concentrations and fluxes of carbon and associated nutrients in the ocean. A new field of ocean biogeochemistry emerged with an emphasis on quality measurements of carbon system parameters and interdisciplinary field studies of the biological, chemical and physical process which control the ocean carbon cycle. As we studied ocean biogeochemistry, we learned that our simple views of carbon uptake and transport were severely limited, and a new "wave" of ocean science was born. U.S. JGOFS has been supported primarily by the U.S. National Science Foundation in collaboration with the National Oceanic and Atmospheric Administration, the National Aeronautics and Space Administration, the Department of Energy and the Office of Naval Research. U.S. JGOFS, ended in 2005 with the conclusion of the Synthesis and Modeling Project (SMP).

[table of contents | back to top]

Funding

Funding Source	Award
National Science Foundation (NSF)	unknown Arabian Sea NSF

[table of contents | back to top]