Picophytoplankton cell counts from R/V Thomas G. Thompson TT049, TT053 cruises in the Arabian Sea in 1995 (U.S. JGOFS Arabian Sea project)

Website: https://www.bco-dmo.org/dataset/2558
Version: July 9, 2001
Version Date: 2001-07-09

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

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

Contributors	Affiliation	Role
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Dataset Description

Picophytoplankton cell counts

Methods & Sampling

See Platform deployments for cruise specific documentation

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Data Files

File
picophyto_TT049.csv (Comma Separated Values (.csv), 12.49 KB) MD5:c84818dcc9a13784cbba9ccf13627718 version July 9, 2001 Robert Olson Picophytoplankton counts Thomas Thompson cruise TTN-049; Arabian Sea Process cruise 4
picophyto_TT053.csv (Comma Separated Values (.csv), 9.22 KB) MD5:fea710e6399fd7125014583193681bf0 version July 9, 2001 Robert Olson Picophytoplankton counts Thomas Thompson cruise TTN-053, Process Cruise 6, Arabian Sea

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Parameters

Parameter	Description	Units
event	event number from event log	
sta	station number from event log	
sta_std	Arabian Sea standard station identifier	
cast	CTD rosette cast number from event log	
bot	CTD rosette bottle number	
depth_n	nominal sample depth	meters
coccus_s	Synechococcus	cells/milliliter
coccus_p	Prochlorococcus	cells/milliliter
phyto_e_u	ultra eukaryotic phytoplankton	cells/milliliter

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Instruments

Dataset-specific Instrument Name	Niskin Bottle
Generic Instrument Name	Niskin bottle
Dataset-specific Description	CTD/Niskin Rosette bottles.
Generic Instrument Description	A Niskin bottle (a next generation water sampler based on the Nansen bottle) is a cylindrical, non-metallic water collection device with stoppers at both ends. The bottles can be attached individually on a hydrowire or deployed in 12, 24, or 36 bottle Rosette systems mounted on a frame and combined with a CTD. Niskin bottles are used to collect discrete water samples for a range of measurements including pigments, nutrients, plankton, etc.

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Deployments

TT049

Website	https://www.bco-dmo.org/deployment/57710
Platform	R/V Thomas G. Thompson
Start Date	1995-07-17
End Date	1995-08-15
Description	**Methods & Sampling** PI: Robert Olson of: Woods Hole Oceanographic Institution dataset: Picophytoplankton cell counts dates: July 18, 1995 to August 11, 1995 location: N: 22.5001 S: 9.9966 W: 57.2997 E: 68.7507 project/cruise: Arabian Sea/TTN-049 - Process Cruise 4 (Middle SW Monsoon) ship: Thomas Thompson PI Note: Our data on picophytoplankton counts were obtained by flow cytometry of preserved samples (0.1% glutaraldehyde, stored in liquid nitrogen). Samples collected from CTD/rosette bottle casts, usually 12 depths per station. Rob Olson Biology Department Woods Hole Oceanographic Institution March 18, 1997 Notes on revised picophytoplankton data for TTN049, Process Cruise 4 Two important changes were made: 1. Correction was made for a software flaw which resulted in miscalculation of the analysis time and thus produced a 10%-15% error in cell numbers. 2. Cells observed in deep secondary chlorophyll maxima at the sub-oxic zone and previously classified as picoeukaryotes were reclassified as Prochlorophytes.

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 Olson (Woods Hole Oceanographic Institution) dataset: Picophytoplankton cell counts dates: October 29, 1995 to November 25, 1995 location: N: 24.3274 S: 10.0928 W: 56.5005 E: 67.1666 project/cruise: Arabian Sea/TTN-053 - Process Cruise 6 (bio-optics) ship: Thomas Thompson PI Note: Our data on picophytoplankton counts where obtained by flow cytometry of preserved samples (0.1% glutaraldehyde, stored in liquid nitrogen). Samples collected from CTD casts.

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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.

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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).

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Funding

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

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