

Mesozooplankton biomass estimates from Bongo Net oblique tows from R/V Thomas G. Thompson TT043, TT045, TT050 cruises in the Arabian Sea in 1995 (U.S. JGOFS Arabian Sea project)

Website: <https://www.bco-dmo.org/dataset/2544>

Version: final

Version Date: 1996-07-31

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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Table of Contents

- [Dataset Description](#)
 - [Methods & Sampling](#)
 - [Data Processing Description](#)
- [Parameters](#)
- [Instruments](#)
- [Deployments](#)
- [Project Information](#)
- [Program Information](#)
- [Funding](#)

Dataset Description

Mesozooplankton biomass, Bongo Net oblique tows

Methods & Sampling

See Platform deployments for cruise specific documentation

Data Processing Description

Sampling methodology:

Smith, Sharon L. 1984. Biological Indications of Active Upwelling in the Northwestern Indian Ocean in 1964 and 1979, and a comparison with Peru and Northwest Africa. Deep-Sea Research 31:951-967

Analysis methodology referenced in:

[[table of contents](#) | [back to top](#)]

Parameters

Parameter	Description	Units
sta	station number from event log	
sta_std	Arabian Sea standard station identifier	
event	event number from event log	
lat	latitude (minus = south)	decimal degrees
lon	longitude (minus = west)	decimal degrees
mzp_C_1	mesozooplankton biomass reported as Carbon for size fraction 200=500um	mmol C/m ²
mzp_C_2	mesozooplankton biomass reported as Carbon for size fraction 500=1000um	mmol C/m ²
mzp_C_3	mesozooplankton biomass reported as Carbon for size fraction 1000=2000um	mmol C/m ²
mzp_C_4	mesozooplankton biomass reported as Carbon for size fraction >2000um	mmol C/m ²
net	Bongo net:	153 or 335 micron mesh
zp_C_1	zooplankton carbon, 200-500 micron	mmol C/m ²
zp_C_2	zooplankton carbon, 500-1000 micron	mmol C/m ²
zp_C_3	zooplankton carbon, 1000-2000 micron	mmol C/m ²
zp_C_4	zooplankton carbon, gt 2000 micron	mmol C/m ²
zp_C_T	zooplankton carbon, total size fractions	mmol C/m ²

[[table of contents](#) | [back to top](#)]

Instruments

Dataset-specific Instrument Name	Bongo Nets
Generic Instrument Name	Bongo Net
Dataset-specific Description	The single bongo deployment used two 2 different net sizes: 335um and 153um.
Generic Instrument Description	A Bongo Net consists of paired plankton nets, typically with a 60 cm diameter mouth opening and varying mesh sizes, 10 to 1000 micron. The Bongo Frame was designed by the National Marine Fisheries Service for use in the MARMAP program. It consists of two cylindrical collars connected with a yoke so that replicate samples are collected at the same time. Variations in models are designed for either vertical hauls (OI-2500 = NMFS Paivovet-Style, MARMAP Bongo, CalVET) or both oblique and vertical hauls (Aquatic Research). The OI-1200 has an opening and closing mechanism that allows discrete "known-depth" sampling. This model is large enough to filter water at the rate of 47.5 m ³ /minute when towing at a speed of two knots. More information: Ocean Instruments, Aquatic Research, Sea-Gear

[[table of contents](#) | [back to top](#)]

Deployments

TT043

Website	https://www.bco-dmo.org/deployment/57704
Platform	R/V Thomas G. Thompson
Report	http://osprey.bcodmo.org/datasetDeployment.cfm?ddid=2580&did=353&flag=view
Start Date	1995-01-08
End Date	1995-02-05
Description	<p>Purpose: Process Cruise #1 (Late NE Monsoon)</p> <p>Methods & Sampling PI: Michael Roman of: Horn Point Environmental Laboratory dataset: Mesozooplankton biomass, Bongo Net oblique tows dates: January 09, 1995 to January 31, 1995 location: N: 22.4848 S: 12.0693 W: 57.3177 E: 67.9341 project/cruise: Arabian Sea, Process 1 TTN043 (Late NE Monsoon) ship: R/V Thomas Thompson Note: All samples were taken from the 153 micron net. All bongo tows sampled the 0-200 meter range except for sta 29, event 01311713 which sampled the 0-100 meter range. DMO note: mesozooplankton from bongo tows</p> <p>Processing Description Sampling methodology: Smith, Sharon L. 1984. Biological Indications of Active Upwelling in the Northwestern Indian Ocean in 1964 and 1979, and a comparison with Peru and Northwest Africa. Deep-Sea Research 31:951-967 Analysis methodology referenced in: Roman, M.R. et al, Zooplankton variability on the equator at 140W during the JGOFS EqPac Study. Deep Sea Research II, 42(2-3) : 673-693, 1995</p>

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	<p>Methods & Sampling PI: Michael Roman of: Horn Point Environmental Laboratory dataset: Mesozooplankton biomass, Bongo Net oblique tows dates: March 15, 1995 to April 05, 1995 location: N: 22.472 S: 12.0623 W: 58.8083 E: 68.3385 project/cruise: Arabian Sea, Process 2 TTN045 (Spring Intermonsoon) ship: R/V Thomas Thompson Note: All samples were taken from the 153 micron net and the 0-200 meter range. DMO note: mesozooplankton from bongo tows</p> <p>Processing Description Sampling methodology: Smith, Sharon L. 1984. Biological Indications of Active Upwelling in the Northwestern Indian Ocean in 1964 and 1979, and a comparison with Peru and Northwest Africa. Deep-Sea Research 31:951-967 Analysis methodology referenced in: Roman, M.R. et al, Zooplankton variability on the equator at 140W during the JGOFS EqPac Study. Deep Sea Research II, 42(2-3) : 673-693, 1995</p>

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	<p>Methods & Sampling PI: Michael Roman of: Horn Point Environmental Laboratory dataset: Mesozooplankton biomass, Bongo Net oblique tows dates: August 19, 1995 to September 13, 1995 location: N: 22.5076 S: 12.063 W: 58.5914 E: 68.733 project/cruise: Arabian Sea, Process 5 TTN050 (Late SW Monsoon) ship: R/V Thomas Thompson Note: All samples were taken from the 153 micron net and the 0-200 meter range. DMO note: mesozooplankton from bongo tows</p> <p>Processing Description Sampling methodology: Smith, Sharon L. 1984. Biological Indications of Active Upwelling in the Northwestern Indian Ocean in 1964 and 1979, and a comparison with Peru and Northwest Africa. Deep-Sea Research 31:951-967 Analysis methodology referenced in: Roman, M.R. et al, Zooplankton variability on the equator at 140W during the JGOFS EqPac Study. Deep Sea Research II, 42(2-3) : 673-693, 1995</p>

[[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](#)]