

# Sarcodine counts and carbon biomass from R/V Thomas G. Thompson cruise TT012 in the Equatorial Pacific in 1992 during the U.S. JGOFS Equatorial Pacific (EqPac) project

**Website:** <https://www.bco-dmo.org/dataset/2694>

**Version:** August 24, 1995

**Version Date:** 1995-08-24

## Project

» [U.S. JGOFS Equatorial Pacific](#) (EqPac)

## Program

» [U.S. Joint Global Ocean Flux Study](#) (U.S. JGOFS)

Contributors	Affiliation	Role
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## Dataset Description

Sarcodine counts and carbon biomass, 30 liter samples

## Methods & Sampling

**PI:** Diane Stoecker  
**of:** Woods Hole Oceanographic Institution  
**dataset:** Sarcodine counts and carbon biomass, 30 liter samples  
**dates:** October 02, 1992 to October 21, 1992  
**location:** N: 0.0348 S: 0.001 W: -140.053 E: -139.9532  
**project/cruise:** EqPac/TT012 - Fall Time Series  
**ship:** Thomas Thompson

### PI-Notes:

Samples obtained from 30 liter Go-Flo bottles, 26 liters of water filtered through a modified Buchner funnel with 20 um nitex mesh screen. Samples were preserved with 20% buffered formalin. Strontium chloride was added to aid with acantharian preservation. Samples stored in dark and refrigerated.

## Data Files

File
<b>sarco30.csv</b> (Comma Separated Values (.csv), 1.25 KB) MD5:5bf25f7a928f11d69316b54a7c6095c6
Primary data file for dataset ID 2694

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## Parameters

Parameter	Description	Units
event	event number from event log	
sta	station number from event log	
cast	TM cast number from event log	
depth_n	nominal depth of sample	meters
dino_het_t	counts of heterotrophic thecate dinoflagellates	count/liter
Rad	counts of radiolarians	count/liter
Foram	counts of foraminiferans	count/liter
Acanth	counts of acantharians	count/liter
dino_het_t_C	carbon biomass, heterotrophic thecate dinoflagellates	nanograms
Rad_C	carbon biomass, radiolarian	nanograms
Foram_C	carbon biomass, foraminiferan	nanograms
Acanth_C	carbon biomass, acantharians	nanograms

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## Instruments

<b>Dataset-specific Instrument Name</b>	Go-flo Bottle
<b>Generic Instrument Name</b>	GO-FLO Bottle
<b>Dataset-specific Description</b>	30 liter Go-Flo bottles were used to collect water samples.
<b>Generic Instrument Description</b>	GO-FLO bottle cast used to collect water samples for pigment, nutrient, plankton, etc. The GO-FLO sampling bottle is specially designed to avoid sample contamination at the surface, internal spring contamination, loss of sample on deck (internal seals), and exchange of water from different depths.

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## Deployments

## TT012

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57731">https://www.bco-dmo.org/deployment/57731</a>
<b>Platform</b>	R/V Thomas G. Thompson
<b>Start Date</b>	1992-09-24
<b>End Date</b>	1992-10-21
<b>Description</b>	Purpose: Fall Time Series; Equator, 140°W TT012 was one of five cruises conducted in 1992 in support of the U.S. Equatorial Pacific (EqPac) Process Study. The five EqPac cruises aboard R/V Thomas G. Thompson included two repeat meridional sections (12°N - 12°S), 2 equatorial surveys, and a benthic survey (all at 140° W). The scientific objectives of this study were to observe the processes in the Equatorial Pacific controlling the fluxes of carbon and related elements between the atmosphere, euphotic zone, and deep ocean. As luck would have it, the survey window coincided with an El Nino event. A bonus for the research team.

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## Project Information

### U.S. JGOFS Equatorial Pacific (EqPac)

**Website:** <http://usjgofs.whoi.edu/research/eqpac.html>

**Coverage:** Equatorial Pacific

The U.S. EqPac process study consisted of repeat meridional sections (12°N -12°S) across the equator in the central and eastern equatorial Pacific from 95°W to 170°W during 1992. The major scientific program was focused at 140° W consisting of two meridional surveys, two equatorial surveys, and a benthic survey aboard the R/V Thomas Thompson. Long-term deployments of current meter and sediment trap arrays augmented the survey cruises. NOAA conducted boreal spring and fall sections east and west of 140°W from the R/V Baldrige and R/V Discoverer. Meteorological and sea surface observations were obtained from NOAA's in place TOGA-TAO buoy network.

The scientific objectives of this study were to determine the fluxes of carbon and related elements, and the processes controlling these fluxes between the Equatorial Pacific euphotic zone and the atmosphere and deep ocean. A broad overview of the program at the 140°W site is given by Murray et al. (Oceanography, 5: 134-142, 1992). A full description of the Equatorial Pacific Process Study, including the international context and the scientific results, appears in a series of Deep-Sea Research Part II special volumes:

Topical Studies in Oceanography, A U.S. JGOFS Process Study in the Equatorial Pacific (1995), Deep-Sea Research Part II, Volume 42, No. 2/3.

Topical Studies in Oceanography, A U.S. JGOFS Process Study in the Equatorial Pacific. Part 2 (1996), Deep-Sea Research Part II, Volume 43, No. 4/6.

Topical Studies in Oceanography, A U.S. JGOFS Process Study in the Equatorial Pacific (1997), Deep-Sea Research Part II, Volume 44, No. 9/10.

Topical Studies in Oceanography, The Equatorial Pacific JGOFS Synthesis (2002), Deep-Sea Research Part II, Volume 49, Nos. 13/14.

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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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