

Annual summaries for EqPac sediment trap particulates collected from the U.S. JGOFS EqPac Sediment Trap Array in the Equatorial Pacific in 1992 during the U.S. JGOFS Equatorial Pacific (EqPac) project

Website: <https://www.bco-dmo.org/dataset/2608>

Version: June 7, 1994

Version Date: 1994-06-07

Project

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

Program

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

Contributors	Affiliation	Role
Collier, Robert	Oregon State University (OSU)	Principal Investigator
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Dataset Description

Annual summaries EqPac sediment trap particulates <1 mm

Methods & Sampling

PI: Robert Collier
of: Oregon State University
dataset: Annual summaries EqPac sediment trap particulates < 1mm
dates: February 3, 1992 to December 13, 1992
location: N: 9.003 S: -11.967 W: -139.982 E: -135.033
project/cruise: Mooring Deployment EQPAC-1
ship: Wecoma

PI Notes

For more detail on sediment trap arrays see: Cruise Report, EQPAC - 1, The First Leg of A JGOFS Study of the Equatorial Pacific, R/V Wecoma W9201B, January 12, 1992 to February 8, 1992, Chief Scientist: Jack Dymond, Oregon State University

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Data Files

File
sedtrapannual.csv (Comma Separated Values (.csv), 1.32 KB) MD5:f9c0d40293cc62f3226c3a66fe644991
Primary data file for dataset ID 2608

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Parameters

Parameter	Description	Units
trap_name	sediment trap name (project latitude depth)	
poison	trap poison type	
lat	latitude	degrees
lon	longitude	degrees
depth_w	water depth	meters
depth_t	depth of trap	meters
days	number of days trap remained open	
mass_f	mass particle flux size fraction < 1mm	milligrams/square meter/day
C_org_f	organic Carbon flux size fraction < 1mm	micromoles/square meter/day
C_inorg_f	inorganic Carbon flux size fraction < 1mm	micromoles/square meter/day
N_f	Nitrogen flux size fraction < 1mm	micromoles/square meter/day
SiO4_bio_f	biogenic silica flux size fraction < 1mm	micromoles/square meter/day
Al_f	aluminium flux size fraction < 1mm	micrograms/square meter/day

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Instruments

Dataset-specific Instrument Name	Sediment Trap
Generic Instrument Name	Sediment Trap
Generic Instrument Description	Sediment traps are specially designed containers deployed in the water column for periods of time to collect particles from the water column falling toward the sea floor. In general a sediment trap has a jar at the bottom to collect the sample and a broad funnel-shaped opening at the top with baffles to keep out very large objects and help prevent the funnel from clogging. This designation is used when the specific type of sediment trap was not specified by the contributing investigator.

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Deployments

EqPac-Array

Website	https://www.bco-dmo.org/deployment/57749
Platform	JGOFS Sediment Trap
Start Date	1992-01-12
End Date	1992-02-08
Description	Sediment Trap Deployments at 140°W that relate to seven locations between 9°N and 12°S

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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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