Zooplankton displacement volumes, MOCNESS net tows from RVIB Nathaniel B. Palmer cruises: NBP-96-4, NBP-96-4A, NBP-97-1, NBP-97-3 in the Southern Ocean in 1997 (U.S. JGOFS AESOPS project)

Website: https://www.bco-dmo.org/dataset/2724
Version: July 21, 2000
Version Date: 2000-07-21

Project
» U.S. JGOFS Antarctic Environment and Southern Ocean Process Study (AESOPS)

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

Contributors	Affiliation	Role
Huntley, Mark	University of California-San Diego Scripps (UCSD-SIO)	Principal Investigator
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Dataset Description

Zooplankton displacement volumes, MOCNESS net tows

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Data Files

File	
dv_mocness_NBP-96-04A.csv	(Comma Separated Values (.csv), 4.97 KB) MD5:d3159819ffcebe547289b9f2ae63dfdd version July 21, 2000 Mark Huntley and Meng Zhou Zooplankton displacement volumes from MOCNESS tows AESOPS/NBP96-4A; Ross Sea Process Cruise 1
dv_mocness_NBP-96-4.csv	(Comma Separated Values (.csv), 1.09 KB) MD5:168fe40d42153f6f92e8eb76ae749520 version July 21, 2000 Mark Huntley and Meng Zhou Zooplankton displacement volumes from MOCNESS tows AESOPS/NBP96-4; Site Survey
dv_mocness_NBP-97-01.csv	(Comma Separated Values (.csv), 5.25 KB) MD5:1afb19b03d1e31f429061a85a74d541e version July 21, 2000 Mark Huntley and Meng Zhou Zooplankton displacement volumes from MOCNESS tows AESOPS/NBP97-1; Ross Sea Process Cruise 2
dv_mocness_NBP-97-03.csv	(Comma Separated Values (.csv), 2.72 KB) MD5:667ba574252293d575735139c0e7e06b version July 21, 2000 Mark Huntley and Meng Zhou Zooplankton displacement volumes from MOCNESS tows AESOPS/NBP97-3; Ross Sea Process 3 cruise

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Parameters

Parameter	Description	Units
event	event number, from event log	
sta	station number, from event log	
tow	MOCNESS tow number	
net	MOCNESS net number	
depth_begin	depth at beginning of net tow	meters
depth_end	depth at end of net tow	meters
zp_disp_vol	zooplankton displacement volume per net	ml/1000m^3
vol_net	total volume of water sampled by net tow	m^3

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Instruments

Dataset-specific Instrument Name	MOCNESS
Generic Instrument Name	MOCNESS
Dataset-specific Description	MOCNESS (Multiple Opening and Closing Nets Envionment Sampling System)
Generic Instrument Description	The Multiple Opening/Closing Net and Environmental Sensing System or MOCNESS is a family of net systems based on the Tucker Trawl principle. There are currently 8 different sizes of MOCNESS in existence which are designed for capture of different size ranges of zooplankton and micro-nekton Each system is designated according to the size of the net mouth opening and in two cases, the number of nets it carries. The original MOCNESS (Wiebe et al, 1976) was a redesigned and improved version of a system described by Frost and McCrone (1974). (from MOCNESS manual)

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Deployments

NBP-96-4

Website	https://www.bco-dmo.org/deployment/57717
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/ss.html
Start Date	1996-08-30
End Date	1996-09-24
Description	Site Survey Cruise **Methods & Sampling** PI: Mark Huntley and Meng Zhou of: Scripps Institution of Oceanography (Huntley) and University of Minnesota, Duluth (Zhou) dataset: Zooplankton displacement volumes, MOCNESS net tows dates: September 08, 1996 to September 17, 1996 location: N: -56.9167 S: -61.9572 W: -170.1833 E: -169.9082 project/cruise: AESOPS/NBP-96-4 - Site Survey Cruise ship: R/V Nathaniel B. Palmer Sampling Methodology

NBP-96-04A

Website	https://www.bco-dmo.org/deployment/57718
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/p1.html
Start Date	1996-10-02
End Date	1996-11-08
Description	Ross Sea Process Study 1 **Methods & Sampling** PI: Mark Huntley and Meng Zhou of: Scripps Institution of Oceanography (Huntley) and University of Minnesota, Duluth (Zhou) dataset: Zooplankton displacement volumes, MOCNESS net tows dates: October 18, 1996 to November 05, 1996 location: N: -76.3635 S: -77.9553 W: 169.8627 E: -175.7857 project/cruise: AESOPS/NBP-96-4A - Ross Sea Process Study 1 ship: R/V Nathaniel B. Palmer Sampling Methodology

NBP-97-01

Website	https://www.bco-dmo.org/deployment/57720
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/p2.html
Start Date	1997-01-13
End Date	1997-02-11
Description	Ross Sea Process Study 2 **Methods & Sampling** PI: Mark Huntley and Meng Zhou of: Scripps Institution of Oceanography (Huntley) and University of Minnesota, Duluth (Zhou) dataset: Zooplankton displacement volumes, MOCNESS net tows dates: January 14, 1997 to February 09, 1997 location: N: -74.0265 S: -78.0207 W: 163.4075 E: -176.0478 project/cruise: AESOPS/NBP-97-1 - Ross Sea Process Study 2 ship: R/V Nathaniel B. Palmer Sampling Methodology

NBP-97-03

Website	https://www.bco-dmo.org/deployment/57721
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/p3.html
Start Date	1997-04-04
End Date	1997-05-11
Description	Ross Sea Process Study 3 **Methods & Sampling** PI: Mark Huntley and Meng Zhou of: Scripps Institution of Oceanography (Huntley) and University of Minnesota, Duluth (Zhou) dataset: Zooplankton displacement volumes, MOCNESS net tows dates: April 14, 1997 to April 29, 1997 location: N: -73.999 S: -77.9385 W: 168.9599 E: -176.1732 project/cruise: AESOPS/NBP-97-3 - Ross Sea Process Study 3 ship: R/V Nathaniel B. Palmer Sampling Methodology

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Project Information

U.S. JGOFS Antarctic Environment and Southern Ocean Process Study (AESOPS)

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

Coverage: Southern Ocean, Ross Sea

The U.S. Southern Ocean JGOFS program, called Antarctic Environment and Southern Ocean Process Study (AESOPS), began in August 1996 and continued through March 1998. The U.S. JGOFS AESOPS program focused on two regions in the Southern Ocean: an east/west section of the Ross-Sea continental shelf along 76.5°S, and a second north/south section of the Southern Ocean spanning the Antarctic Circumpolar Current (ACC) at ~170°W (identified as the Polar Front). The science program, coordinated by Antarctic Support Associates (ASA), comprised eleven cruises using the R.V.I.B Nathaniel B. Palmer and R/V Roger Revelle as observational platforms and for deployment and recovery of instrumented moorings and sediment-trap arrays. The Ross-Sea region was occupied on six occasions and the Polar Front five times. Mapping data were obtained from SeaSoar, ADCP, and bathymetric systems. Satellite coverage was provided by the NASA SeaWiFS and the NOAA/NASA Pathfinder programs.

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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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