Ross Sea, Antarctic Polar Front Zone standard depths from RVIB Nathaniel B. Palmer cruises NBP-96-5, NBP-98-2, NBP-97-1, Southern Ocean, 1996-1997, (U.S. JGOFS AESOPS project)

Website: https://www.bco-dmo.org/dataset/2712
Version: December 8, 1998
Version Date: 1998-12-08

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
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Dataset Description

Ross Sea, Antarctic Polar Front Zone standard depths

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Data Files

File
bathymetry.csv (Comma Separated Values (.csv), 265.05 KB)   MD5:a91e45e9076180fcdae087d0a2ecd59a   Primary data file for dataset ID 2712

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Parameters

Parameter	Description	Units
location	location of transect	
lat	latitude (negative = south)	decimal degrees
lon_360	longitude (0 to 360 degrees)	decimal degrees
depth_ocean	water depth at specified location	meters

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Deployments

NBP-96-5

Website	https://www.bco-dmo.org/deployment/57719
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/m1.html
Start Date	1996-11-11
End Date	1996-12-01
Description	Moorings Deployment **Methods & Sampling** PI: Robert Anderson of: Lamont-Doherty Earth Observatory at Columbia University dataset: Ross Sea, Antarctic Polar Front Zone standard depths dates: August 30, 1996 to March 19, 1998 location: N: -44.0278 S: -77.8444 W: 165.862 E: 192.373 project/cruise: AESOPS - all cruises ship: Nathaniel B. Palmer PI-Note: AESOPS Investigators presenting AESOPS data may use these data as a standardized bathymetry of the research area. The 76deg30min transect represents the standardized bathymetry in the Ross Sea. The 170degW transect is the full AESOPS transect from the Ross Sea to New Zealand. 76.5S All data within .5 mile on either side of 76.5S were extracted from the daily underway (jgdata) files recorded during cruises NBP96-5 and NBP97-1. It was then sorted by longitudes and subsampled to 1 minute of longitude using Akima's spline for interpolation. A GIF image is also available. 170W Bathymetry data collected during NBP98-2 were sorted by latitude and smoothed using a Robust median filter of 1.08 minutes of latitude. Then, the data were output at a resolution of .36 minutes of latitude. A GIF image is also available, as well as some higher resolution quarter section GIFs along 170W: first quarter section second quarter section third quarter section fourth quarter section All GIF images were generated by Suzanne O'Hara (LDEO).

NBP-98-2

Website	https://www.bco-dmo.org/deployment/57723
Platform	RVIB Nathaniel B. Palmer
Report	http://usjgofs.whoi.edu/aesops/nbp-bp_mr.html
Start Date	1998-02-25
End Date	1998-04-03
Description	Benthic Process and Moorings Recovery **Methods & Sampling** PI: Robert Anderson of: Lamont-Doherty Earth Observatory at Columbia University dataset: Ross Sea, Antarctic Polar Front Zone standard depths dates: August 30, 1996 to March 19, 1998 location: N: -44.0278 S: -77.8444 W: 165.862 E: 192.373 project/cruise: AESOPS - all cruises ship: Nathaniel B. Palmer PI-Note: AESOPS Investigators presenting AESOPS data may use these data as a standardized bathymetry of the research area. The 76deg30min transect represents the standardized bathymetry in the Ross Sea. The 170degW transect is the full AESOPS transect from the Ross Sea to New Zealand. 76.5S All data within .5 mile on either side of 76.5S were extracted from the daily underway (jgdata) files recorded during cruises NBP96-5 and NBP97-1. It was then sorted by longitudes and subsampled to 1 minute of longitude using Akima's spline for interpolation. A GIF image is also available. 170W Bathymetry data collected during NBP98-2 were sorted by latitude and smoothed using a Robust median filter of 1.08 minutes of latitude. Then, the data were output at a resolution of .36 minutes of latitude. A GIF image is also available, as well as some higher resolution quarter section GIFs along 170W: first quarter section second quarter section third quarter section fourth quarter section All GIF images were generated by Suzanne O'Hara (LDEO).

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: Robert Anderson of: Lamont-Doherty Earth Observatory at Columbia University dataset: Ross Sea, Antarctic Polar Front Zone standard depths dates: August 30, 1996 to March 19, 1998 location: N: -44.0278 S: -77.8444 W: 165.862 E: 192.373 project/cruise: AESOPS - all cruises ship: Nathaniel B. Palmer PI-Note: AESOPS Investigators presenting AESOPS data may use these data as a standardized bathymetry of the research area. The 76deg30min transect represents the standardized bathymetry in the Ross Sea. The 170degW transect is the full AESOPS transect from the Ross Sea to New Zealand. 76.5S All data within .5 mile on either side of 76.5S were extracted from the daily underway (jgdata) files recorded during cruises NBP96-5 and NBP97-1. It was then sorted by longitudes and subsampled to 1 minute of longitude using Akima's spline for interpolation. A GIF image is also available. 170W Bathymetry data collected during NBP98-2 were sorted by latitude and smoothed using a Robust median filter of 1.08 minutes of latitude. Then, the data were output at a resolution of .36 minutes of latitude. A GIF image is also available, as well as some higher resolution quarter section GIFs along 170W: first quarter section second quarter section third quarter section fourth quarter section All GIF images were generated by Suzanne O'Hara (LDEO).

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.

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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