Georges Bank bathymetry from ADCP data from twelve R/V Endeavor cruises EN262 in the Gulf of Maine and Georges Bank area during 1995 (GB project)

Website: https://www.bco-dmo.org/dataset/2294
Data Type: Cruise Results
Version: 1
Version Date: 2006-03-13

Project
» U.S. GLOBEC Georges Bank (GB)

Program
» U.S. GLOBal ocean ECosystems dynamics (U.S. GLOBEC)

Contributors	Affiliation	Role
Flagg, Charles	Stony Brook University - MSRC (SUNY-SB MSRC)	Scientist
Groman, Robert C.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Abstract
Georges Bank bathymetry from ADCP data from twelve R/V Endeavor cruises EN262 in the Gulf of Maine and Georges Bank area during 1995

Table of Contents

Coverage

Spatial Extent: **N**:42.3313 **E**:-65.6088 **S**:40.1102 **W**:-71.4117
Temporal Extent: 1995 - 1995

Dataset Description

Georges Bank bathymetry from ADCP data

DMO note:
Year of data can be obtained from cruise report(s).

Contributor:
Charles Flagg,
Endeavour Hall, Rm 203
Marine Science Research Center
SUNY Stony Brook
Stony Brook, NY 11794
cflagg@mc.cc.sunysb.edu

Julio Candela prepared the data for on-line use.

last update: March 13, 2006.

Methods & Sampling

Georges Bank bathymetry from the ADCP Endeavor data from Charles Flagg, Brookhaven National Laboratories

[table of contents | back to top]

Data Files

File
bathy_ADCP.csv (Comma Separated Values (.csv), 1.21 MB) MD5:e791b3231ac00fe3679103c8df06bfa8 Primary data file for dataset ID 2294

[table of contents | back to top]

Parameters

Parameter	Description	Units
cruiseid	cruise identification i.e. EN235	
ship	ship name	
yrday_gmt	yearday, GMT, Julian Calendar	decimal yearday
lat	latitude, negative=south	decimal degrees
lon	longitude, negative=west	decimal degrees
depth_w	water depth	meters

[table of contents | back to top]

Instruments

Dataset-specific Instrument Name	Acoustic Doppler Current Profiler
Generic Instrument Name	Acoustic Doppler Current Profiler
Dataset-specific Description	Acoustic Doppler Current Profiler, encompasses an array of band widths and frequencies
Generic Instrument Description	The ADCP measures water currents with sound, using a principle of sound waves called the Doppler effect. A sound wave has a higher frequency, or pitch, when it moves to you than when it moves away. You hear the Doppler effect in action when a car speeds past with a characteristic building of sound that fades when the car passes. The ADCP works by transmitting "pings" of sound at a constant frequency into the water. (The pings are so highly pitched that humans and even dolphins can't hear them.) As the sound waves travel, they ricochet off particles suspended in the moving water, and reflect back to the instrument. Due to the Doppler effect, sound waves bounced back from a particle moving away from the profiler have a slightly lowered frequency when they return. Particles moving toward the instrument send back higher frequency waves. The difference in frequency between the waves the profiler sends out and the waves it receives is called the Doppler shift. The instrument uses this shift to calculate how fast the particle and the water around it are moving. Sound waves that hit particles far from the profiler take longer to come back than waves that strike close by. By measuring the time it takes for the waves to bounce back and the Doppler shift, the profiler can measure current speed at many different depths with each series of pings. (More from WHOI instruments listing).

[table of contents | back to top]

Deployments

EN262

Website	https://www.bco-dmo.org/deployment/57402
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en262/EN262.pdf
Start Date	1995-02-23
End Date	1995-03-10
Description	process zoology **Methods & Sampling** Georges Bank bathymetry from the ADCP

EN263

Website	https://www.bco-dmo.org/deployment/57403
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en263/EN263.pdf
Start Date	1995-03-13
End Date	1995-03-24
Description	broad-scale **Methods & Sampling** Georges Bank bathymetry from the ADCP

EN260

Website	https://www.bco-dmo.org/deployment/57400
Platform	R/V Endeavor
Start Date	1995-01-29
End Date	1995-02-06
Description	long term mooring deployment **Methods & Sampling** Georges Bank bathymetry from the ADCP

EN259

Website	https://www.bco-dmo.org/deployment/57399
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en259.html
Start Date	1995-01-10
End Date	1995-01-22
Description	process zoology **Methods & Sampling** Georges Bank bathymetry from the ADCP

EN264

Website	https://www.bco-dmo.org/deployment/57404
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en264.html
Start Date	1995-03-26
End Date	1995-04-08
Description	process zoology **Methods & Sampling** Georges Bank bathymetry from the ADCP Endeavor data from Charles Flagg, Brookhaven National Laboratories

EN266

Website	https://www.bco-dmo.org/deployment/57406
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en266/EN266.pdf
Start Date	1995-04-26
End Date	1995-05-08
Description	process zoology **Methods & Sampling** Georges Bank bathymetry from the ADCP Endeavor data from Charles Flagg, Brookhaven National Laboratories

EN267I

Website	https://www.bco-dmo.org/deployment/57407
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en267/EN267.pdf
Start Date	1995-05-22
End Date	1995-06-05
Description	process zoology **Methods & Sampling** Georges Bank bathymetry from the ADCP Endeavor data from Charles Flagg, Brookhaven National Laboratories

EN267II

Website	https://www.bco-dmo.org/deployment/57408
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en267L2/EN267L2.pdf
Start Date	1995-06-08
End Date	1995-06-19
Description	process **Methods & Sampling** Georges Bank bathymetry from the ADCP Endeavor data from Charles Flagg, Brookhaven National Laboratories

EN268

Website	https://www.bco-dmo.org/deployment/57409
Platform	R/V Endeavor
Start Date	1995-06-26
End Date	1995-07-06
Description	process **Methods & Sampling** Georges Bank bathymetry from the ADCP Endeavor data from Charles Flagg, Brookhaven National Laboratories

EN269

Website	https://www.bco-dmo.org/deployment/57410
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en269/EN269.pdf
Start Date	1995-07-10
End Date	1995-07-13
Description	process mooring **Methods & Sampling** Georges Bank bathymetry from the ADCP Endeavor data from Charles Flagg, Brookhaven National Laboratories

EN261

Website	https://www.bco-dmo.org/deployment/57401
Platform	R/V Endeavor
Start Date	1995-02-10
End Date	1995-02-20
Description	broad-scale **Methods & Sampling** Georges Bank bathymetry from the ADCP Endeavor data from Charles Flagg, Brookhaven National Laboratories

EN265

Website	https://www.bco-dmo.org/deployment/57405
Platform	R/V Endeavor
Start Date	1995-04-11
End Date	1995-04-22
Description	broad-scale **Methods & Sampling** Georges Bank bathymetry from the ADCP

[table of contents | back to top]

Project Information

U.S. GLOBEC Georges Bank (GB)

Website: http://globec.whoi.edu/globec_program.html

Coverage: Georges Bank, Gulf of Maine, Northwest Atlantic Ocean

The U.S. GLOBEC Georges Bank Program is a large multi- disciplinary multi-year oceanographic effort. The proximate goal is to understand the population dynamics of key species on the Bank - Cod, Haddock, and two

species of zooplankton (*Calanus finmarchicus* and *Pseudocalanus*) - in terms of their coupling to the physical environment and in terms of their predators and prey. The ultimate goal is to be able to predict changes in the distribution and abundance of these species as a result of changes in their physical and biotic environment as well as to anticipate how their populations might respond to climate change.

The effort is substantial, requiring broad-scale surveys of the entire Bank, and process studies which focus both on the links between the target species and their physical environment, and the determination of fundamental aspects of these species' life history (birth rates, growth rates, death rates, etc).

Equally important are the modelling efforts that are ongoing which seek to provide realistic predictions of the flow field and which utilize the life history information to produce an integrated view of the dynamics of the populations.

The U.S. GLOBEC Georges Bank Executive Committee (EXCO) provides program leadership and effective communication with the funding agencies.

[table of contents | back to top]

Program Information

U.S. GLOBal ocean ECosystems dynamics (U.S. GLOBEC)

Website: http://www.usglobec.org/

Coverage: Global

U.S. GLOBEC (GLOBal ocean ECosystems dynamics) is a research program organized by oceanographers and fisheries scientists to address the question of how global climate change may affect the abundance and production of animals in the sea.

The U.S. GLOBEC Program currently had major research efforts underway in the Georges Bank / Northwest Atlantic Region, and the Northeast Pacific (with components in the California Current and in the Coastal Gulf of Alaska). U.S. GLOBEC was a major contributor to International GLOBEC efforts in the Southern Ocean and Western Antarctic Peninsula (WAP).

[table of contents | back to top]

Funding

Funding Source	Award
National Science Foundation (NSF)	unknown GB NSF
National Oceanic and Atmospheric Administration (NOAA)	unknown GB NOAA

[table of contents | back to top]