Scanfish data from R/V Endeavor cruises EN321 and EN325 in the Gulf of Maine and Georges Bank in 1999 as part of the U.S. GLOBEC program (GB project)

Website: https://www.bco-dmo.org/dataset/2432
Data Type: Cruise Results
Version: 1
Version Date: 2006-03-24

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

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

Contributors	Affiliation	Role
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Abstract
Scanfish data from R/V Endeavor cruises EN321 and EN325 in the Gulf of Maine and Georges Bank in 1999 as part of the U.S. GLOBEC program.

Table of Contents

- Coverage
- Dataset Description
  - Methods & Sampling
- Data Files
- Parameters
- Instruments
- Deployments
- Project Information
- Program Information
- Funding

Coverage

Spatial Extent: **N**:42.37286 **E**:-66.41446 **S**:40.72768 **W**:-67.83502
Temporal Extent: 1999-03-28 - 1999-06-30

Dataset Description

SCANFISH CTD Data Endeavor Cruises 321 and 325

PI Notes:
The Scanfish is a towed undulating vehicle carrying a CTD and several other sensors and was utilized on Endeavor Cruises 321 and 325 to Georges Bank. The scanfish is towed along various transacts to map the hydrographic properties of a survey area. During each cruise a number of tows were carried out, and the data are organized by tow. The SeaBird 911plus CTD records data at 24 Hz. It has been processed following the procedures outlined by O'Malley, et al (1998) and subsequently averaged to 1 Hz.

REFERENCE
O'Malley, R., J. A. Barth, A. Erofeev, J. Fleischbein, P. M. Kosro, and S. D. Pierce. SeaSoar CTD Observations During the Coastal Mixing and Optics Experiment: R/V Endeavor Cruises from 14-Aug to 1-Sep 1996 and 25-

Apr to 15-May 1997. College of Oceanic & Atmospheric Sciences, Oregon State University, Corvallis. Reference 98-1, Data Report 168, October 1998.

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Methods & Sampling

The Scanfish is a towed undulating vehicle carrying a CTD and several other sensors and was utilized on Endeavor Cruises 321 and 325 to Georges Bank. The scanfish is towed along various transacts to map the hydrographic properties of a survey area. During each cruise a number of tows were carried out, and the data are organized by tow. The SeaBird 911plus CTD records data at 24 Hz. It has been processed following the procedures outlined by O'Malley, et al (1998) and subsequently averaged to 1 Hz.

[table of contents | back to top]

Data Files

File
scanfish.csv (Comma Separated Values (.csv), 24.87 MB) MD5:33d676c2675b66d50fda7d75925a2ba0 Primary data file for dataset ID 2432

[table of contents | back to top]

Parameters

Parameter	Description	Units
cruiseid	cruise identification	
year	year, 4 digit	
tow	tow number within cruise	
yrday_gmt	year day based on Julian calendar (Jan. 1, noon = 1.5)	
lat	latitude, negative = South	DD.D
lon	longitude, negative = West	DDD.D
press	depth of sample reported as pressure	decibars
temp	water temperature, ITS90	deg. C
sal	salinity, PSS-78, PSU	
sigma_t	sigma_t	kg/m³
o2	dissolved oxygen	ml/l
chl_a	chlorophyll as derived from a CTD mounted fluorometer	ug/l

[table of contents | back to top]

Instruments

Dataset-specific Instrument Name	SeabirdCTD
Generic Instrument Name	CTD Sea-Bird
Dataset-specific Description	The SeaBird 911plus CTD records data at 24 Hz.
Generic Instrument Description	A Conductivity, Temperature, Depth (CTD) sensor package from SeaBird Electronics. This instrument designation is used when specific make and model are not known or when a more specific term is not available in the BCO-DMO vocabulary. Refer to the dataset-specific metadata for more information about the specific CTD used. More information from: http://www.seabird.com/

Dataset-specific Instrument Name	Scanfish
Generic Instrument Name	Scanfish
Dataset-specific Description	The Scanfish is a towed undulating vehicle carrying a CTD and several other sensors and was utilized on Endeavor Cruises 321 and 325 to Georges Bank.
Generic Instrument Description	The Scanfish is a remotely operated, towed, undulating vehicle system designed for collecting 3D profile data of the water column. It includes a Conductivity, Temperature, Depth (CTD) profiler as part of the instrument package. The Scanfish housing has fins to allow it to dive and rise, an altimeter to determine the depth of the unit, a pump that moves water through the system and a data cable that reports data back to the ship as the fish is being towed through the water behind the vessel. The Scanfish can be configured with additional sensors, e.g. fluorometer.

[table of contents | back to top]

Deployments

EN321

Website	https://www.bco-dmo.org/deployment/57428
Platform	R/V Endeavor
Start Date	1999-03-28
End Date	1999-04-11
Description	process **Methods & Sampling** The Scanfish is a towed undulating vehicle carrying a CTD and several other sensors and was utilized on Endeavor Cruises 321 and 325 to Georges Bank. The scanfish is towed along various transacts to map the hydrographic properties of a survey area. During each cruise a number of tows were carried out, and the data are organized by tow. The SeaBird 911plus CTD records data at 24 Hz. It has been processed following the procedures outlined by O'Malley, et al (1998) and subsequently averaged to 1 Hz.

EN325

Website	https://www.bco-dmo.org/deployment/57432
Platform	R/V Endeavor
Start Date	1999-06-13
End Date	1999-06-30
Description	process **Methods & Sampling** The Scanfish is a towed undulating vehicle carrying a CTD and several other sensors and was utilized on Endeavor Cruises 321 and 325 to Georges Bank. The scanfish is towed along various transacts to map the hydrographic properties of a survey area. During each cruise a number of tows were carried out, and the data are organized by tow. The SeaBird 911plus CTD records data at 24 Hz. It has been processed following the procedures outlined by O'Malley, et al (1998) and subsequently averaged to 1 Hz.

[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 Oceanic and Atmospheric Administration (NOAA)	unknown GB NOAA
NSF Division of Ocean Sciences (NSF OCE)	OCE-9806375

[table of contents | back to top]