SeaSoar CTD observations from R/V Oceanus cruises OC340 and OC343 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/2431
Data Type: Cruise Results
Version: 1
Version Date: 2000-10-16

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

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

Contributors	Affiliation	Role
Barth, Jack	Oregon State University (OSU)	Co-Principal Investigator
Hebert, Dave	University of Rhode Island (URI-GSO)	Co-Principal Investigator
Allison, Dicky	Woods Hole Oceanographic Institution (WHOI)	BCO-DMO Data Manager

Abstract
SeaSoar CTD observations from R/V Oceanus cruises OC340 and OC343 in the Gulf of Maine and Georges Bank in 1999 as part of the U.S. GLOBEC program (GB project)

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Coverage

Spatial Extent: **N**:42.59421 **E**:-66.28048 **S**:40.53822 **W**:-67.76664
Temporal Extent: 1999-03-30 - 1999-06-30

Dataset Description

The seasoar is a towed, undulating vehicle which records CTD and other data. The system records SeaBird CTD data at 24 hz, and it had other sensors on the A/D channels. The seasoar gets towed along different tracklines to map out various survey areas. Each time the seasoar is deployed and recovered is one "tow", and each of the cruises have a number of tows.

PI: Jack Barth (OSU), Dave Hebert (URI)
dataset: SeaSoar CTD data
project/cruise: R/V Oceanus Cruise 340 and 343 to Georges Bank
ship: Oceanus

Cruise details given in:

Hebert, D., J. A. Barth, D. Ullman, S. Fontana and W. Ostrom,
1999. Cruise Report: R/V Oceanus Cruise 340 to Georges Bank, 28 March
to 12 April 1999.
US GLOBEC NW Atlantic/Georges Bank Study, 37 pp.

Methods are described in:

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.
R. O'Malley, J.A. Barth, A. Erofeev, J. Fleischbein, P.M. Kosro and
S.D. Pierce. College of Oceanic & Atmospheric Sciences, Oregon State
University, Corvallis. Reference 98-1, Data Report 168, October 1998.

Hebert, D., J. A. Barth, D. Ullman and S. Fontana,
1999. Cruise Report: R/V Oceanus Cruise 343 to Georges Bank, 14 June
to 1 July 1999.
US GLOBEC NW Atlantic/Georges Bank Study, 40 pp.

These are flat files, with data every 1-sec for each tow. The tows are
numbered sequentialy (tow1, tow2, etc).

Notes:
1. There are two fields for different fluorometers: flvolt (aka FL-1) is from a WetLabs Wetstar fluorometer, while flvolt_2 (aka FL-2) is from a WetLabs FlashPAK fluorometer.

2. Original field name is shown in parenthesis in the "Description" column.

3. There were some problems in the data fields whenever the lat/lon were interpolated for lack of GPS observations. The OC343 data files were replaced on-line with the reprocessed files October 16, 2000.

Methods & Sampling

The seasoar is a towed, undulating vehicle which records CTD and other data. The system records SeaBird CTD data at 24 hz, and it had other sensors on the A/D channels. The seasoar gets towed along different tracklines to map out various survey areas. Each time the seasoar is deployed and recovered is one 'tow', and each of the cruises have a number of tows.

Data Processing Description

Methods are described in:

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.
R. O'Malley, J.A. Barth, A. Erofeev, J. Fleischbein, P.M. Kosro and
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Data Files

File
seasoar_ctd.csv (Comma Separated Values (.csv), 181.38 MB) MD5:a0e4e561e280722022678dca5d3b5499 Primary data file for dataset ID 2431

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Parameters

Parameter	Description	Units
yrday_utc	Julian Day plus fractional day for reference (jday+):Jan 1 noon = 1.5Jan 1 midnight = 2.0	decimal days (UTC)
lat	Latitude (- for S)	decimal degrees
lon	Longitude (- for W)	decimal degrees
press	Pressure (P)	decibars
temp	Temperature (T)	degrees C
sal_ctd	Salinity (S)	PSS
sigma_t_ctd	Sigma-T (sig-t)	kg / cubic-meter
potemp_ctd	Potential Temperature	Degrees C
sigma_0_ctd	Sigma-Theta	kg / cubic-meter
flvolt	Fluorometer (Fl or Fl-1)	volts (0-5)
flvolt_2	Fluorometer (alternate measurement) (Fl-2) OC343 only.	volts (0-5)
light_tran_v	Transmissometer (trans)	volts (0-5)
cruiseid	Cruise Identifier.	unitless
year	Year.	unitless
tow	tow number	unitless

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Instruments

Dataset-specific Instrument Name	SeabirdCTD
Generic Instrument Name	CTD Sea-Bird
Dataset-specific Description	The system records SeaBird CTD data at 24 hz, and it had other sensors on the A/D channels. The seasoar gets towed along different tracklines to map out various survey areas.
Generic Instrument Description	Conductivity, Temperature, Depth (CTD) sensor package from SeaBird Electronics, no specific unit identified. This instrument designation is used when specific make and model are not known. See also other SeaBird instruments listed under CTD. More information from Sea-Bird Electronics.

Dataset-specific Instrument Name	SeaSoar
Generic Instrument Name	SeaSoar
Dataset-specific Description	The seasoar is a towed, undulating vehicle which records CTD and other data.
Generic Instrument Description	Towed, undulating vehicle usually equipped with a VPR, TAPS, PAR, CTD

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Deployments

OC340

Website	https://www.bco-dmo.org/deployment/57463
Platform	R/V Oceanus
Report	http://globec.whoi.edu/globec-dir/reports/oc340/oc340rpt.html
Start Date	1999-03-28
End Date	1999-04-12
Description	process **Methods & Sampling** The seasoar is a towed, undulating vehicle which records CTD and other data. The system records SeaBird CTD data at 24 hz, and it had other sensors on the A/D channels. The seasoar gets towed along different tracklines to map out various survey areas. Each time the seasoar is deployed and recovered is one 'tow', and each of the cruises have a number of tows. **Processing Description** Methods are described in: 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. R. O'Malley, J.A. Barth, A. Erofeev, J. Fleischbein, P.M. Kosro and S.D. Pierce. College of Oceanic & Atmospheric Sciences, Oregon State University, Corvallis. Reference 98-1, Data Report 168, October 1998. Hebert, D., J. A. Barth, D. Ullman and S. Fontana, 1999. Cruise Report: R/V Oceanus Cruise 343 to Georges Bank, 14 June to 1 July 1999. US GLOBEC NW Atlantic/Georges Bank Study, 40 pp. These are flat files, with data every 1-sec for each tow. The tows are numbered sequentialy (tow1, tow2, etc).

OC343

Website	https://www.bco-dmo.org/deployment/57466
Platform	R/V Oceanus
Report	http://globec.whoi.edu/globec-dir/reports/oc343/oc343rpt.html
Start Date	1999-06-15
End Date	1999-06-30
Description	process **Methods & Sampling** The seasoar is a towed, undulating vehicle which records CTD and other data. The system records SeaBird CTD data at 24 hz, and it had other sensors on the A/D channels. The seasoar gets towed along different tracklines to map out various survey areas. Each time the seasoar is deployed and recovered is one 'tow', and each of the cruises have a number of tows. **Processing Description** Methods are described in: 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. R. O'Malley, J.A. Barth, A. Erofeev, J. Fleischbein, P.M. Kosro and S.D. Pierce. College of Oceanic & Atmospheric Sciences, Oregon State University, Corvallis. Reference 98-1, Data Report 168, October 1998. Hebert, D., J. A. Barth, D. Ullman and S. Fontana, 1999. Cruise Report: R/V Oceanus Cruise 343 to Georges Bank, 14 June to 1 July 1999. US GLOBEC NW Atlantic/Georges Bank Study, 40 pp. These are flat files, with data every 1-sec for each tow. The tows are numbered sequentialy (tow1, tow2, etc).

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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.

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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).

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Funding

Funding Source	Award
National Oceanic and Atmospheric Administration (NOAA)	unknown GB NOAA
NSF Division of Ocean Sciences (NSF OCE)	OCE-9806650
NSF Division of Ocean Sciences (NSF OCE)	OCE-9813641

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