CTD data from the Gulf of Maine and Georges Bank on the R/V Columbus Iselin and R/V Endeavor, 1994-1995, as part of the US GLOBEC Georges Bank Process Study

Website: https://www.bco-dmo.org/dataset/2303
Data Type: Cruise Results
Version: 1
Version Date: 1997-01-29

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

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

Contributors	Affiliation	Role
Limeburner, Richard	Woods Hole Oceanographic Institution (WHOI)	Principal Investigator
Allison, Dicky	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Abstract
CTD data from the Gulf of Maine and Georges Bank on the R/V Columbus Iselin and R/V Endeavor, 1994-1995, as part of the US GLOBEC Georges Bank Process Study.

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Coverage

Spatial Extent: **N**:42.363 **E**:-65.6988 **S**:40.2937 **W**:-69.2175
Temporal Extent: 1994-05-25 - 1995-07-12

Dataset Description

Process Study CTD data, Gulf of Maine/Georges Bank

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Dataset:
Process Study CTD data, Gulf of Maine/Georges Bank

NOTE:
These data sets should be considered preliminary. A cursory quality review has been performed and the

results of this review are tabulated below on a cruise by cruise basis.

CHARLES ISELIN CRUISE 9407, CTD DATA QUALITY REVIEW

GENERAL COMMENT: THIS DATA SET IS OF POOR QUALITY, USE "CAUTION".

1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT.
2..CASTS 96 AND 98 CONTAIN ONLY A SURFACE DATA CYCLE. FILES DELETED. 3..OXYGEN BAD ALL CASTS. REPLACED WITH -9..
4..SALINITY IS NOISY. SOME CASTS WORSE THEN OTHERS. NO ATTEMPT TO CLEAN UP. USE WITH CAUTION.
5..LIGHT TRANSMISSION. CASTS 68 - 99 SHOW A ONE VOLT OFFSET FROM CASTS 1-68. CALIBRATION PROBLEM? USE WITH CAUTION. NO ATTEMPT TO CLEAN UP SPIKES.
6..FLUORESCENCE. CASTS 68 - 99 SHOW A TWO VOLT OFFSET FROM CASTS 1 - 68. CALIBRATION PROBLEM? USE WITH CAUTION. NO ATTEMPT TO CLEAN UP SPIKES.

ENDEAVOR CRUISE 259, CTD DATA QUALITY REVIEW

1..CAST SAMPLING INFORMATION WAS EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT.
2..NO CTD CAST 20. APPEARS TO BE THE RESULT OF MIS-NUMBERING.
3..CTD CAST 13 HAS ONLY ONE DATA CYCLE, SURFACE VALUE. FILE DELETED.
4..CTD CAST 27. THE DATA REPORTED FOR CAST 27 IS THE EXACT SAME AS FOR CAST 28. THE FILE FOR CAST 27 DELETED.
5..CTD CAST 29. FLUOROMETER DATA BAD ENTIRE CAST, REPLACED WITH -9.0 BAD/MISSING DATA INDICATOR.
6..CTD CAST 30. TRANSMISSOMETER DATA, DATA SPIKE AT 274 DECIBARS. REPLACED WITH -9.0.
7..OXYGEN DISPLAYS OCCASIONAL DATA SPIKES AND SHIFTS EXTENDING OVER MORE THEN ONE DECIBAR. NO ACTION TAKEN

ENDEAVOR CRUISE 260, CTD DATA QUALITY REVIEW

1..CAST SAMPLING INFORMATION WAS EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT.
2..CAST NUMBERS 26, 27 AND 28 MISSING.
3..OXYGEN DISPLAYS OCCASIONAL DATA SPIKES EXTENDING OVER MORE THEN ONE DECIBAR (CAST 13 AT 110 DECIBARS, AND CAST 16 AT 41 DECIBARS). NO ACTION TAKEN.

ENDEAVOR CRUISE 262, CTD DATA QUALITY REVIEW

1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT.
2..CAST NUMBERS 20, AND 21. ALL OXYGEN VALUES BAD. REPLACED WITH -9..
3..LIGHT TRANSMISSION. ONE DECIBAR DATA SPIKES REMOVED FROM CAST 2, 5 AND 23, SURFACE VALUES. A ONE DECIBAR SPIKE REMOVED FROM CAST 21 AT 14 DECIBARS.
4..FLUORESCENCE. DATA SPIKE REMOVED FROM CAST 21 AT 14 DECIBARS.

ENDEAVOR CRUISE 264, CTD DATA QUALITY REVIEW

1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT.
2..CAST NUMBERS 29, 30, 32, AND 34 MISSING.
3..LIGHT TRANSMISSION. ONE DECIBAR DATA SPIKES REMOVED FROM CAST 2 AT 10M, AND CAST 23 AT 88M.

ENDEAVOR CRUISE 266, CTD DATA QUALITY REVIEW

1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT.
2..DATA FOR CAST NUMBERS 22, AND 23 MISSING.

ENDEAVOR CRUISE 267 LEG 1, CTD DATA QUALITY REVIEW

1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE

REPORTED AS GMT.
2..DATA FOR CAST NUMBERS 4, 98, AND 103 MISSING.
3..CAST 1 AND 81 ALL VALUES REMOVED FROM LAST DATA CYCLE DUE TO DATA SPIKES.
4..FLUORESCENCE. DATA OFF SCALE ON THE HIGH SIDE. SEVERAL CASTS EXCEED THE MAX. OF VALUE OF 5 VOLTS.

ENDEAVOR CRUISE 267 LEG 2, CTD DATA QUALITY REVIEW

1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT.
2..ONE DECIBAR SALINITY SPIKES REMOVED FROM STATION 210 at 24m, 214 at 16m and 217 at 4m.

ENDEAVOR CRUISE 269, CTD DATA QUALITY REVIEW

1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT.
2..CAST 30, FLUORESCENCE DATA SPIKE AT 69 METERS REMOVED.
3..OXYGEN VERY NOISY (LARGE NUMBER OF SPIKES). NO ACTION TAKEN. USE WITH CAUTION.

updated: November 16, 2005; gfh

Methods & Sampling

Process Study CTD data, Gulf of Maine/Georges Bank.

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Data Files

File
ctd_rl.csv(Comma Separated Values (.csv), 5.84 MB) MD5:1f311c02be40c1324e85aab25210f908 Primary data file for dataset ID 2303

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Parameters

Parameter	Description	Units
cruiseid	cruise identification	
year	starting year, GMT	
station	pre-assigned station number	
month_gmt	starting month 1-12, GMT	
day_gmt	starting day 01-31, GMT	

time_start_gmt	starting time for the cast, GMT	HHmm.m
time_end_gmt	ending time for the cast, GMT	HHmm.m
lat_start	starting latitude, negative = south	decimal degrees
lon_start	starting longitude, negative = west	decimal degrees
lat_end	ending latitude	decimal degrees
lon_end	ending longitude	decimal degrees
depth_w	water depth	meters
press_min	minimum pressure, range within cast	decibars
press_max	maximum pressure	decibars
temp_min	minimum temperature, range within cast	degrees C.
temp_max	maximum temperature	degrees C.
sal_min	minimum salinity, range within cast, PSS	dimensionless
sal_max	maximum salinity, PSS	dimensionless
o2_min	minimum dissolved oxygen, range within cast	milliliter per liter
o2_max	maximum dissolved oxygen	milliliter per liter
press	pressure at observation/sample (equates to water depth)	decibars
temp	water temperature	degrees C
sal	salinity, as calculated from CTD conductivity and temperature, PPS	dimensionless
o2	dissolved oxygen	milliliter per liter

flvolt	relative fluorescence	volts
light_tran_v	light transmission as volts	volts
numb_obs	number of observations	

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Instruments

Dataset-specific Instrument Name	Conductivity, Temperature, Depth
Generic Instrument Name	CTD - profiler
Dataset-specific Description	CTD measurements taken, CTD unit unidentified. # Inst. # = IM960560; CAL Extn = C00 # Averover = 1DBar; ScanRate = 25.000Hz
Generic Instrument Description	The Conductivity, Temperature, Depth (CTD) unit is an integrated instrument package designed to measure the conductivity, temperature, and pressure (depth) of the water column. The instrument is lowered via cable through the water column. It permits scientists to observe the physical properties in real-time via a conducting cable, which is typically connected to a CTD to a deck unit and computer on a ship. The CTD is often configured with additional optional sensors including fluorometers, transmissometers and/or radiometers. It is often combined with a Rosette of water sampling bottles (e.g. Niskin, GO-FLO) for collecting discrete water samples during the cast. This term applies to profiling CTDs. For fixed CTDs, see https://www.bco-dmo.org/instrument/869934.

Dataset-specific Instrument Name	MkIIICTD
Generic Instrument Name	CTD Neil Brown Mark III
Dataset-specific Description	Mark III CTD
Generic Instrument Description	The Neil Brown Instrument Systems Mark III Conductivity, Temperature, Depth (CTD) instrument is an integral unit containing pressure, temperature and conductivity sensors with an optional dissolved oxygen sensor in a pressure-hardened casing. Developed in the 1970s, the Neil Brown CTD unit was able to digitize conductivity, temperature and pressure measurements at sufficient speeds to permit oceanographers to study 10 cm features at winch lowering speeds of 30 meters per minute. The most widely used variant in the 1980s and 1990s was the MK3B. The MK3C fitted with an improved pressure sensor to reduce hysteresis was developed to meet the requirements of the WOCE project. The instrument is no longer in production, but is supported (repair and calibration) by General Oceanics.

Dataset-specific Instrument Name	Neil Brown CTD with TAPS
Generic Instrument Name	CTD Neil Brown Mark III plus TAPS
Dataset-specific Description	Neil Brown CTD with TAPS
Generic Instrument Description	This is an integrated instrument package comprising a Neil Brown Instrument Systems Mark III Conductivity, Temperature, Depth (CTD) profiler unit with a Tracor Acoustic Profiling System (TAPS). (see TAPS entry for a description of that instrument)

Dataset-specific Instrument Name	TAPS
Generic Instrument Name	TRACOR Acoustic Profiling System
Generic Instrument Description	The TRACOR Acoustic Profiling System (TAPS) is custom designed zooplankton sampler developed by V. Holliday of Tracor Inc. It uses a four transducer array operating at frequencies 265 kHz, 420 kHz, 1.1 MHz, and 3 MHz. The transducer array is designed to provide information on the distribution of individual organisms ranging in size from individual copepods to nauplii at distances of 2-3 m.

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Deployments

CI9407

Website	https://www.bco-dmo.org/deployment/57391
Platform	R/V Columbus Iselin
Report	http://globec.whoi.edu/globec-dir/reports/ci9407/CI9407.pdf
Start Date	1994-05-25
End Date	1994-06-16
Description	process zoology **Methods & Sampling** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** CHARLES ISELIN CRUISE 9407, CTD DATA QUALITY REVIEW GENERAL COMMENT: THIS DATA SET IS OF POOR QUALITY, USE "CAUTION". 1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..CASTS 96 AND 98 CONTAIN ONLY A SURFACE DATA CYCLE. FILES DELETED. 3..OXYGEN BAD ALL CASTS. REPLACED WITH -9.. 4..SALINITY IS NOISY. SOME CASTS WORSE THEN OTHERS. NO ATTEMPT TO CLEAN UP. USE WITH CAUTION. 5..LIGHT TRANSMISSION. CASTS 68 - 99 SHOW A ONE VOLT OFFSET FROM CASTS 1-68. CALIBARATION PROBLEM? USE WITH CAUTION. NO ATTEMPT TO CLEAN UP SPIKES. 6..FLUORESCENCE. CASTS 68 - 99 SHOW A TWO VOLT OFFSET FROM CASTS 1 - 68. CALIBRATION PROBLEM? USE WITH CAUTION. NO ATTEMPT TO CLEAN UP SPIKES.

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** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** ENDEAVOR CRUISE 259, CTD DATA QUALITY REVIEW 1..CAST SAMPLING INFORMATION WAS EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..NO CTD CAST 20. APPEARS TO BE THE RESULT OF MIS-NUMBERING. 3..CTD CAST 13 HAS ONLY ONE DATA CYCLE, SURFACE VALUE. FILE DELETED. 4..CTD CAST 27. THE DATA REPORTED FOR CAST 27 IS THE EXACT SAME AS FOR CAST 28. THE FILE FOR CAST 27 DELETED. 5..CTD CAST 29. FLUOROMETER DATA BAD ENTIRE CAST, REPLACED WITH -9.0 BAD/MISSING DATA INDICATOR. 6..CTD CAST 30. TRANSMISSOMETER DATA, DATA SPIKE AT 274 DECIBARS. REPLACED WITH -9.0. 7..OXYGEN DISPLAYS OCCASIONAL DATA SPIKES AND SHIFTS EXTENDING OVER MORE THEN ONE DECIBAR. NO ACTION TAKEN

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** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** ENDEAVOR CRUISE 260, CTD DATA QUALITY REVIEW 1..CAST SAMPLING INFORMATION WAS EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..CAST NUMBERS 26, 27 AND 28 MISSING. 3..OXYGEN DISPLAYS OCCASIONAL DATA SPIKES EXTENDING OVER MORE THEN ONE DECIBAR (CAST 13 AT 110 DECIBARS, AND CAST 16 AT 41 DECIBARS). NO ACTION TAKEN.

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** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** ENDEAVOR CRUISE 262, CTD DATA QUALITY REVIEW 1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..CAST NUMBERS 20, AND 21. ALL OXYGEN VALUES BAD. REPLACED WITH -9.. 3..LIGHT TRANSMISSION. ONE DECIBAR DATA SPIKES REMOVED FROM CAST 2, 5 AND 23, SURFACE VALUES. A ONE DECIBAR SPIKE REMOVED FROM CAST 21 AT 14 DECIBARS. 4..FLUORESCENCE. DATA SPIKE REMOVED FROM CAST 21 AT 14 DECIBARS.

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** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** ENDEAVOR CRUISE 264, CTD DATA QUALITY REVIEW 1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..CAST NUMBERS 29, 30, 32, AND 34 MISSING. 3..LIGHT TRANSMISSION. ONE DECIBAR DATA SPIKES REMOVED FROM CAST 2 AT 10M, AND CAST 23 AT 88M.

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** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** ENDEAVOR CRUISE 266, CTD DATA QUALITY REVIEW 1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..DATA FOR CAST NUMBERS 22, AND 23 MISSING.

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** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** ENDEAVOR CRUISE 267 LEG 1, CTD DATA QUALITY REVIEW 1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..DATA FOR CAST NUMBERS 4, 98, AND 103 MISSING. 3..CAST 1 AND 81 ALL VALUES REMOVED FROM LAST DATA CYCLE DUE TO DATA SPIKES. 4..FLUORESCENCE. DATA OFF SCALE ON THE HIGH SIDE. SEVERAL CASTS EXCEED THE MAX. OF VALUE OF 5 VOLTS.

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** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** ENDEAVOR CRUISE 267 LEG 2, CTD DATA QUALITY REVIEW 1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..ONE DECIBAR SALINITY SPIKES REMOVED FROM STATION 210 at 24m, 214 at 16m and 217 at 4m.

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** Process Study CTD data, Gulf of Maine/Georges Bank. **Processing Description** ENDEAVOR CRUISE 269, CTD DATA QUALITY REVIEW 1..CAST SAMPLING INFORMATION EDITED TO BE CONSISTENT WITH THE EVENT LOG. DATES AND TIMES ARE REPORTED AS GMT. 2..CAST 30, FLUORESCENCE DATA SPIKE AT 69 METERS REMOVED. 3..OXYGEN VERY NOISY (LARGE NUMBER OF SPIKES). NO ACTION TAKEN. USE WITH CAUTION.

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

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