1995 and 1996 fairly raw chlorophyll data, Georges Bank collected from the GLOBEC Broadscale cruises from the Gulf of Maine and Georges Bank (GB project)

Website: https://www.bco-dmo.org/dataset/2298
Data Type: Cruise Results
Version: 1
Version Date: 2005-11-15

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
Raw Extracted Chlorophyll Data from Broadscale CTD stations in the Gulf of Maine, 1995 and 1996.

Table of Contents

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

Coverage

Spatial Extent: **N**:42.335 **E**:-65.6483 **S**:40.4383 **W**:-68.9567
Temporal Extent: 1995-05-09 - 1996-03-18

Dataset Description

Raw Extracted Chlorophyll Data from Broadscale CTD stations, 1995 and 1996.

PI NOTES:
The 1995 and 1996 bottle data were collected with a GO rosette mounted above the MK5 CTD. Water for chlorophyll extractions was taken at priority 1 and 2 stations and at 3 "standard" depths (according to a protocal set up by Ted Durbin and Dian Gifford at the University of Rhode Island). For each bottle, 3 replicate samples were run for consistency. 50 mls were filtered for 3 size fractions: total chlorophyll, chlorophyll from water filtered through a <20 micron mesh and chlorophyll from water filtered through a <5 micron mesh. This

means that for any one station, there were 27 test tubes: 3 depths, 3 replicates, 3 size fractions. The samples were usually read at sea (after the 24 hour acetone extraction). If not, Ted Durbin"s Lab read them when the ship returned.

The companion object for this data is chloro_bot_chem, which details salinity, temperature, fluorometry and tranmissometry collected from the same bottles.

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Updated November 15, 2005; gfh

Methods & Sampling

The 1995 and 1996 bottle data were collected with a GO rosette mounted above the MK5 CTD. Water for chlorophyll extractions was taken at priority 1 and 2 stations and at 3 'standard' depths (according to a protocal set up by Ted Durbin and Dian Gifford at the University of Rhode Island). For each bottle, 3 replicate samples were run for consistency. 50 mls were filtered for 3 size fractions: total chlorophyll, chlorophyll from water filtered through a <20 micron mesh and chlorophyll from water filtered through a <5 micron mesh. This means that for any one station, there were 27 test tubes: 3 depths, 3 replicates, 3 size fractions. The samples were usually read at sea (after the 24 hour acetone extraction). If not, Ted Durbin's Lab read them when the ship returned.

[table of contents | back to top]

Data Files

File
chloro_bottle.csv (Comma Separated Values (.csv), 366.51 KB) MD5:64a1355110812c62b1d57a330e6a64da Primary data file for dataset ID 2298

[table of contents | back to top]

Parameters

Parameter	Description	Units
cruiseid	cruise identification	
year	year	
cast	CTD rosette cast number	
bottle	bottle number on this cast	
depth	depth of sample	meters
fraction	size fraction of phytoplankton sampled	microns
chl_a	chlorophyll a, as calculated from fluorescence	micrograms/liter
chl_a_avg	chlorophyll a average, based on three replicates	micrograms/liter
lat	latitude in decimal degrees: North is positive; negative denotes South	decimal degrees
lon	longitude in decimal degrees: East is positive; negative denotes West	decimal degrees
station_std	standard broad-scale station number	integer
day_local	local-time day	1 to 31
month_local	local-time month	1 to 12
time_local	local time of cast	
yrday_local	local day and decimal time, as 326.5 for the 326th day of the year, or November 22 at 1200 hours (noon)	

[table of contents | back to top]

Instruments

Dataset-specific Instrument Name	Niskin Bottle
Generic Instrument Name	Niskin bottle
Dataset-specific Description	Niskin Bottles mounted on a Rosette.
Generic Instrument Description	A Niskin bottle (a next generation water sampler based on the Nansen bottle) is a cylindrical, non-metallic water collection device with stoppers at both ends. The bottles can be attached individually on a hydrowire or deployed in 12, 24, or 36 bottle Rosette systems mounted on a frame and combined with a CTD. Niskin bottles are used to collect discrete water samples for a range of measurements including pigments, nutrients, plankton, etc.

[table of contents | back to top]

Deployments

AL9505

Website	https://www.bco-dmo.org/deployment/57371
Platform	R/V Albatross IV
Report	http://globec.whoi.edu/globec-dir/reports/al9505/al9505rot.pdf
Start Date	1995-05-09
End Date	1995-05-18
Description	broad-scale

AL9506

Website	https://www.bco-dmo.org/deployment/57372
Platform	R/V Albatross IV
Report	http://globec.whoi.edu/globec-dir/reports/al9506/al9506new.html
Start Date	1995-06-05
End Date	1995-06-15
Description	broad-scale

AL9508

Website	https://www.bco-dmo.org/deployment/57373
Platform	R/V Albatross IV
Report	http://globec.whoi.edu/globec-dir/reports/al9508/a9508rp2.HTM
Start Date	1995-07-10
End Date	1995-07-20
Description	broad-scale

AL9605

Website	https://www.bco-dmo.org/deployment/57375
Platform	R/V Albatross IV
Report	http://globec.whoi.edu/globec-dir/reports/al9605/al9605.html
Start Date	1996-05-06
End Date	1996-05-17
Description	broad-scale

AL9607

Website	https://www.bco-dmo.org/deployment/57376
Platform	R/V Albatross IV
Report	http://globec.whoi.edu/globec-dir/reports/al9607/AL9607.pdf
Start Date	1996-06-03
End Date	1996-06-13
Description	broad-scale

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

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

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

EN276

Website	https://www.bco-dmo.org/deployment/57413
Platform	R/V Endeavor
Report	http://globec.whoi.edu/globec-dir/reports/en276/EN276.pdf
Start Date	1996-01-10
End Date	1996-01-22
Description	broad-scale

EN278

Website	https://www.bco-dmo.org/deployment/57414
Platform	R/V Endeavor
Start Date	1996-02-13
End Date	1996-02-25
Description	broad-scale

EN282

Website	https://www.bco-dmo.org/deployment/57415
Platform	R/V Endeavor
Start Date	1996-04-08
End Date	1996-04-20
Description	broad-scale

OC275

Website	https://www.bco-dmo.org/deployment/57440
Platform	R/V Oceanus
Start Date	1996-03-11
End Date	1996-03-22
Description	broad-scale

[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]