Zooplankton counts from R/V Albatross IV, R/V Endeavor, and R/V Oceanus in the Gulf of Maine and Georges Bank from 1995-1999 (GB project)

Website: https://www.bco-dmo.org/dataset/3524

Version: 2012-10-02

Project

» U.S. GLOBEC Georges Bank (GB)

Program

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

| Contributors | Affiliation | Role |
|-----------------------|---|------------------------|
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Dataset Description

Zooplankton Meter³ Data - Pump data only

The Zooplankton Meter³ Database for the Georges Bank GLOBEC project was originally located in the laboratory of Ted Durbin at the Graduate School of Oceanography, University of Rhode Island. It was accessed via the U.S. GLOBEC Georges Bank data management system using SQLPlus network access to the data base management system at URI. The data were cached and are served from the local computer.

A description of the original URI database is available online and includes the design and variable definitions. A version of this document is shown <u>here.</u>

Note: Our program's <u>Data Acknowledgement Policy</u> requires that any person making substantial use of a data set must communicate with the investigators who acquired the data prior to publication and anticipate that the data collectors will be co-authors of published results.

The following documentation applies to the data found locally on the WHOI GLOBEC Data Server: The data is served as a hierarchy. The least changing variables are in higher order levels (e.g., cruise id, year, month, etc.), while variables that change the most are in the lower order levels (e.g., time of collection, net number, taxon collected, etc.) There are six levels within the database; variable names and descriptions are given in the metadata.

Most column variable names and instrument names were taken from the U.S. GLOBEC Georges Bank data thesaurus; those that were not follow the GLOBEC data protocols. The taxonomic code variable (taxon_code) is from the National Oceanographic Data Center's Taxonomic List, version 8. Taxonomic information is built into these ten-digit codes as they reflect the systematic nomenclature.

You may contact BCO-DMO for additional help.

Data Processing Description

02 Oct 2012 - BCO-DMO re-formatted data, adding the stage and count columns.

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Data Files

File

zoo_cb_meter_pump.csv(Comma Separated Values (.csv), 42.91 MB)

MD5:461b2bf1ca8e180074f7db37243ff464

Primary data file for dataset ID 3524

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Parameters

| Parameter | Description | Units |
|--------------------|---|--------------------|
| station | Consecutive station number during cruise. | text |
| station_std | Standard Broad scale station number. | text |
| depth_w | Water depth, in meters. | meters |
| cruiseid | Cruise Identifier. (e.g., AL9607, EN276, OC275) | text |
| cruise_type | Type of cruise. BSS - Broad scale Survey; PRO - Process Cruise; MOR - Mooring Cruise. | text |
| year_cruise_begin | 4-digit year when cruise began. | YYYY |
| month_cruise_begin | 2-digit month when the cruise began. | mm (01 to 12) |
| day_cruise_begin | 2-digit day of month when cruise began. | dd (01 to 31) |
| year_cruise_end | 4-digit year when cruise ended. | YYYY |
| month_cruise_end | 2-digit month when the cruise ended. | mm (01 to 12) |
| day_cruise_end | 2-digit day of month when cruise ended. | dd (01 to 31) |
| event | Event or operation number. Unique ID. | unitless |
| inst | Instrument used to collect or process data. MOC1 - 1 meter square MOCNESS; Bongo - 61 cm diameter Bongo; Pump - zooplankton pump. | unitless |
| tow | Tow or haul number. | unitless |
| lat_begin | Latitude at Beginning of measurement, in decimal degrees. (south is negative) | decimal degrees |
| lon_begin | Longitude at Beginning of measurement, in decimal degrees. (west is negative) | decimal degrees |
| year_utc_begin | Year (UTC) at the beginning of the measurement. | YYYY |
| month_utc_begin | 2-digit month (UTC) at the beginning of the measurement. | mm (01 to 12) |

| day_utc_begin | 2-digit day (UTC) at the beginning of the measurement. | dd (01 to 31) |
|----------------|--|------------------|
| time_utc_begin | Time (UTC) at the beginning of the measurement. | ННММ |
| year_utc_end | Year (UTC) at the end of the measurement. | YYYY |
| month_utc_end | 2-digit month (UTC) at the end of the measurement. | mm (01 to 12) |
| day_utc_end | 2-digit day (UTC) at the end of the measurement. | dd (01 to 31) |
| time_utc_end | Time (UTC) at the end of the measurement. | ННММ |
| allsort_flag | Flag for sorting. Default = 'n'. When all nets for particular tow are sorted, flag = 'y'. | unitless |
| net | Net number. | unitless |
| vol_net | Volume of water filtered by net, in cubic meters. | cubic meters |
| depth_begin | Depth of sampler at beginning of measurement, meters. | meters |
| depth_end | Depth of sampler at end of measurement, meters. | meters |
| gearcode | Gear Code - used by NMFS. Three digit code that specifies gear and mesh size of net. 1M1 - 1 meter square MOCNESS, 150 um mesh 1M3 - 1 meter square MOCNESS, 335 um mesh P35 - Pump, 35 um mesh P50 - Pump, 50 um mesh 6B2 - 61 cm diameter Bongo, 200 um mesh 6B3 - 61 cm diameter Bongo, 335 um mesh | text |
| count_flag | Counting method flag. Default = none. none = not sorted at present time all = All species/taxa enumerated Top_Five = Cal_only = only Calanus spp. counted stemple = subsampled with Henson-Stemple pipette. (Only Calanus finmarchicus counted.) | text |
| counter | Initials of sorter and date sorted. | text |
| taxon | Taxon name. | text |
| taxon_code | Taxonomic Code. Ten digit number from NODC Taxonomic List, v. 8. | unitless |
| stage | Taxon stage: m3_fem = copepod females. m3_mal = copepod males. m3_cop = Total Copepodites. m3_c1 = Copepodite stage 1 (C1). m3_c2 = Copepodite stage 2 (C2). m3_c3 = Copepodite stage 3 (C3). m3_c4 = Copepodite stage 4 (C4). m3_c5 = Copepodite stage 5 (C5). m3_npl = Total Nauplii (N1-N6). m3_n1 = Nauplius stage 1 (N1). m3_n2 = Nauplius stage 2 (N2). m3_n3 = Nauplius stage 3 (N3). m3_n4 = Nauplius stage 4 (N4). m3_n5 = Nauplius stage 5 (N5). m3_n6 = Nauplius stage 6 (N6). m3_not = non-copepod taxa. | text |
| count | Count of taxa per stage per cubic meter. | unitless |

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Instruments

| Dataset- specific Instrument Name | Zooplankton Pump - gas powered diaphragm |
|--|---|
| Generic Instrument Name | Zooplankton Pump - gas powered diaphragm |
| | This kind of diaphragm pump, manufactured by Homelite and run on gasoline, is called a positive displacement pump because it pumps a specific volume for each pump cycle. Diaphragm pumps move fluids more slowly than centrifugal pumps but treat the animals more gently and they can handle thicker mud and larger amounts of solids. They also tolerate air being drawn into the pump and can be run dry without damage. In 2002, Homelite was acquired and became Riverside Pump Manufacturing, Inc. Diaphragm pumps feature a straight through self priming design and the rubber elastomer diaphragm and flapper valves are easily replaced on site. |

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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 | |

AL9701

| Website | https://www.bco-dmo.org/deployment/57378 | |
|-------------|---|--|
| Platform | R/V Albatross IV | |
| Report | http://globec.whoi.edu/globec-dir/reports/al9701/cral9701.htm | |
| Start Date | 1997-01-13 | |
| End Date | 1997-01-20 | |
| Description | broad-scale | |

AL9705

| Website | https://www.bco-dmo.org/deployment/57379 | |
|-------------|--|--|
| Platform | R/V Albatross IV | |
| Report | http://globec.whoi.edu/globec-dir/reports/al9705/al9705.html | |
| Start Date | 1997-05-19 | |
| End Date | 1997-05-27 | |
| Description | broad-scale | |

AL9707

| Website | https://www.bco-dmo.org/deployment/57380 | |
|-------------|--|--|
| Platform | R/V Albatross IV | |
| Report | http://globec.whoi.edu/globec-dir/reports/al9707/al9707.html | |
| Start Date | 1997-06-18 | |
| End Date | 1997-06-28 | |
| Description | broad-scale | |

AL9801

| Website | https://www.bco-dmo.org/deployment/57382 |
|-------------|--|
| Platform | R/V Albatross IV |
| Report | http://globec.whoi.edu/globec-dir/reports/al9801/al9801.html |
| Start Date | 1998-01-07 |
| End Date | 1998-01-19 |
| Description | broad-scale |

AL9806

| Website | https://www.bco-dmo.org/deployment/57384 |
|-------------|--|
| Platform | R/V Albatross IV |
| Report | http://globec.whoi.edu/globec-dir/reports/al9806/al9806.html |
| Start Date | 1998-05-13 |
| End Date | 1998-05-22 |
| Description | broad-scale |

AL9808

| Website | https://www.bco-dmo.org/deployment/57385 |
|-------------|--|
| Platform | R/V Albatross IV |
| Report | http://globec.whoi.edu/globec-dir/reports/al9808/al9808.html |
| Start Date | 1998-06-16 |
| End Date | 1998-06-26 |
| Description | broad-scale |

AL9901

| Website | https://www.bco-dmo.org/deployment/57386 |
|-------------|--|
| Platform | R/V Albatross IV |
| Report | http://globec.whoi.edu/globec-dir/reports/al9901/al9901.html |
| Start Date | 1999-01-12 |
| End Date | 1999-01-24 |
| Description | broad-scale |

AL9904

| Website | https://www.bco-dmo.org/deployment/57387 |
|-------------|--|
| Platform | R/V Albatross IV |
| Start Date | 1999-05-19 |
| End Date | 1999-05-27 |
| Description | broad-scale |

AL9906

| Website | https://www.bco-dmo.org/deployment/57388 |
|-------------|---|
| Platform | R/V Albatross IV |
| Report | http://globec.whoi.edu/globec-dir/reports/al9906/al9906rpt.html |
| Start Date | 1999-06-14 |
| End Date | 1999-06-24 |
| Description | broad-scale |

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 |

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 |

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 |

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 |

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 |

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 |

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 |

EN2671

| 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 |

EN26711

| 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 |

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 |

EN319

| Website | https://www.bco-dmo.org/deployment/57426 |
|-------------|--|
| Platform | R/V Endeavor |
| Report | http://globec.whoi.edu/globec-dir/reports/en319/en319rept.html |
| Start Date | 1999-02-21 |
| End Date | 1999-03-04 |
| Description | process zooplankton vital rates |

EN320

| Website | https://www.bco-dmo.org/deployment/57427 |
|-------------|---|
| Platform | R/V Endeavor |
| Report | http://globec.whoi.edu/globec-dir/reports/en320new/en320mda.htm |
| Start Date | 1999-03-10 |
| End Date | 1999-03-23 |
| Description | broad-scale |

EN322

| Website | https://www.bco-dmo.org/deployment/57429 |
|-------------|--|
| Platform | R/V Endeavor |
| Start Date | 1999-04-17 |
| End Date | 1999-05-02 |
| Description | process |

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 |

OC298

| Website | https://www.bco-dmo.org/deployment/57444 |
|-------------|---|
| Platform | R/V Oceanus |
| Report | http://globec.whoi.edu/globec-dir/reports/oc298/cruisereport.html |
| Start Date | 1997-02-11 |
| End Date | 1997-02-23 |
| Description | broad-scale |

OC300

| Website | https://www.bco-dmo.org/deployment/57446 |
|-------------|---|
| Platform | R/V Oceanus |
| Report | http://globec.whoi.edu/globec-dir/reports/oc300/oc300rpt.mr7.html |
| Start Date | 1997-03-16 |
| End Date | 1997-03-28 |
| Description | broad-scale |

OC301

| Website | https://www.bco-dmo.org/deployment/57447 | |
|-------------|--|--|
| Platform | R/V Oceanus | |
| Report | http://globec.whoi.edu/globec-dir/reports/oc301/oc301.html | |
| Start Date | 1997-04-05 | |
| End Date | 1997-04-17 | |
| Description | process fish vital rates | |

| Website | https://www.bco-dmo.org/deployment/57448 | |
|-------------|---|--|
| Platform | R/V Oceanus | |
| Report | http://globec.whoi.edu/globec-dir/reports/oc302/oce302.html | |
| Start Date | 1997-04-22 | |
| End Date | 1997-05-02 | |
| Description | broad-scale | |

OC303

| Website | https://www.bco-dmo.org/deployment/57449 | |
|-------------|--|--|
| Platform | R/V Oceanus | |
| Report | http://globec.whoi.edu/globec-dir/reports/oc303/oc303.html | |
| Start Date | 1997-05-06 | |
| End Date | 1997-05-23 | |
| Description | process | |

OC317

| Website | https://www.bco-dmo.org/deployment/57451 | |
|-------------|--|--|
| Platform | R/V Oceanus | |
| Start Date | 1998-02-06 | |
| End Date | 1998-02-19 | |
| Description | broad-scale | |

OC319

| Website | https://www.bco-dmo.org/deployment/57452 | |
|-------------|--|--|
| Platform | R/V Oceanus | |
| Report | http://globec.whoi.edu/globec-dir/reports/oc319/oc319new/oc319rpt.8april98.htm | |
| Start Date | 1998-03-15 | |
| End Date | 1998-03-27 | |
| Description | broad-scale | |

OC322

| | , | |
|-------------|--|--|
| Website | https://www.bco-dmo.org/deployment/57454 | |
| Platform | R/V Oceanus | |
| Report | http://globec.whoi.edu/globec-dir/reports/oc322/oc322.html | |
| Start Date | 1998-04-15 | |
| End Date | 1998-04-27 | |
| Description | broad-scale | |

| Website | https://www.bco-dmo.org/deployment/57459 | |
|-------------|---|--|
| Platform | R/V Oceanus | |
| Report | http://globec.whoi.edu/globec-dir/reports/oc336/oc336cruise-report.html | |
| Start Date | 1999-02-11 | |
| End Date | 1999-02-23 | |
| Description | broad-scale | |

OC341

| Website | https://www.bco-dmo.org/deployment/57464 | |
|-------------|--|--|
| Platform | R/V Oceanus | |
| Report | http://globec.whoi.edu/globec-dir/reports/oc341/reptoc341.html | |
| Start Date | 1999-04-16 | |
| End Date | 1999-04-27 | |
| Description | broad-scale | |

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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 <u>Georges Bank</u> 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, <u>Haddock</u>, and two species of zooplankton (<u>Calanus finmarchicus</u> and <u>Pseudocalanus</u>) - in terms of their coupling to the physical environment and in terms of their <u>predators and prey</u>. 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 <u>Executive Committee (EXCO)</u> 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-9313677 |

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