Bongo displacement volume data from R/V Albatross IV, R/V Endeavor, and R/V Oceanus during U.S. GLOBEC Georges Bank broadscale cruises to Georges Bank and the Gulf of Maine in 1995-1999 (GB project)

Website: https://www.bco-dmo.org/dataset/2391

Data Type: Cruise Results

Version: 1

Version Date: 2002-11-06

Project

» U.S. GLOBEC Georges Bank (GB)

Program

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

Contributors	Affiliation	Role
Green, John	National Marine Fisheries Service (NMFS)	Co-Principal Investigator
Mountain, David	National Marine Fisheries Service (NMFS)	Co-Principal Investigator
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Abstract

Bongo displacement volume data from R/V Albatross IV, R/V Endeavor, and R/V Oceanus during U.S. GLOBEC Georges Bank broadscale cruises to Georges Bank and the Gulf of Maine in 1995-1999 (GB project)

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Coverage

Spatial Extent: **N**:42.34 **E**:-65.66 **S**:40.23 **W**:-69.14

Temporal Extent: 1995-02-11 - 1999-06-23

Dataset Description

BioVolume Data from Bongo Tows during Broadscale Cruises, 1995-1999
Dave Mountain, Jack Green and Joe Kane, NMFS

This displacement volume data comes from one net with a mesh size of 333 um.

Acquisition Description

This displacement volume data comes from one net with a mesh size of 333 um.

Processing Description

column header	meaning	units
raw_vol	raw volume	cc
displ_vol	displacement volume	cc/100m3
haul_factor	haul factor	100/volume filtered (m3)

displacement volume is a normalized displacement volume and is calculated: **raw_vol * haul_factor**

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Parameters

Parameter	Description	Units
raw_vol	raw volume	cc
displ_vol	displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor. Displacement volume is the volume of animals per 100 cubic meters of seawater.	cc per 100m3 water
haul_factor	haul factor. A standard haul factor (SHF) was calculated for each Bongo net tow to make them comparable and to allow estimation of areal abundance. The SHF is calculated by the formula: SHF = 10D/V where D = depth of haul = cosine of the average angle of stray of the towing cable multiplied by cable length (m) V = total volume of water (m3) strained during the haul. V = R * a * p where R = total number of revolutions of the current meter during the haul a = area (m2) of the mouth of the net p = length of the column of water needed produce one revolution of the current meter	100/volume filtered (m3)
cruiseid	cruise identifier e.g. AL9505 is RV/Albatross-9505	
year	year of sampling	yyyy
cast	cast number	integer
station	station number	integer
station_std	standard station number	integer
day_local	day of month in local time	1-31
month_local	month in local time	1-12
time_local	local time	HHmm

lat	latitude: North is positive and negative denotes South	decimal degrees
lon	longtude: East is positive and negative denotes West	decimal degrees
depth_w	depth of the water	cubic meters
depth	depth of the sample	meters
region	code for region of NW Atlantic: GBK= Georges Bank; GOM=Gulf of Maine; SNE=Southern New England; SSH=Slope/Shelf; UNK=unknown	text
yrday_local	local day and decimal time: as 326.5 for the 326th day of the year or November 22 at 1200 hours (noon)	

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Instruments

Dataset-specific Instrument Name	Bongo Nets
Generic Instrument Name	Bongo Net
Dataset-specific Description	Bongo net with a mesh size of 333 um.
Generic Instrument Description	A Bongo Net consists of paired plankton nets, typically with a 60 cm diameter mouth opening and varying mesh sizes, 10 to 1000 micron. The Bongo Frame was designed by the National Marine Fisheries Service for use in the MARMAP program. It consists of two cylindrical collars connected with a yoke so that replicate samples are collected at the same time. Variations in models are designed for either vertical hauls (OI-2500 = NMFS Pairovet-Style, MARMAP Bongo, CalVET) or both oblique and vertical hauls (Aquatic Research). The OI-1200 has an opening and closing mechanism that allows discrete "known-depth" sampling. This model is large enough to filter water at the rate of 47.5 m3/minute when towing at a speed of two knots. More information: Ocean Instruments, Aquatic Research, Sea-Gear

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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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

OC302

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

OC336

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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 **Acquisition Description** This displacement volume data comes from one net with a mesh size of 333 um. **Processing Description** column header meaning units raw_vol raw volume cc displ_vol displacement volume cc/100m3 haul_factor haul factor 100/volume filtered (m3) displacement volume is a normalized displacement volume and is calculated: raw_vol * haul_factor

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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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