

# Fish eggs collected in Bongo nets from R/V Albatross IV, R/V Endeavor, and R/V Oceanus during U.S. GLOBEC broadscale cruises in the Gulf of Maine and Georges Bank from 1995-1999 (GB project)

**Website:** <https://www.bco-dmo.org/dataset/2322>

**Data Type:** Cruise Results

**Version:** 1

**Version Date:** 2005-07-08

## Project

» [U.S. GLOBEC Georges Bank](#) (GB)

## Program

» [U.S. GLOBal ocean ECosystems dynamics](#) (U.S. GLOBEC)

| Contributors                   | Affiliation                                            | Role                   |
|--------------------------------|--------------------------------------------------------|------------------------|
| <a href="#">Sibunka, John</a>  | National Oceanic and Atmospheric Administration (NOAA) | Principal Investigator |
| <a href="#">Allison, Dicky</a> | Woods Hole Oceanographic Institution (WHOI BCO-DMO)    | BCO-DMO Data Manager   |

## Abstract

Fish eggs collected in Bongo nets from R/V Albatross IV, R/V Endeavor, and R/V Oceanus during U.S. GLOBEC broadscale cruises in the Gulf of Maine and Georges Bank from 1995-1999

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## Coverage

**Spatial Extent:** N:42.468 E:-65.657 S:40.285 W:-69.142

**Temporal Extent:** 1995-02-10 - 1999-06-14

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## Dataset Description

### Georges Bank Fish Egg Data from Bongo Nets

<sup>1</sup>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.

<sup>2</sup>Stages 6, 7, 8, & 9 are used only for Gadidae eggs.

**Any questions, contact:**

John Sibunka  
National Marine Fisheries Service, NEFC  
Sandy Hook Marine Lab.  
74 Magruder Road  
Highlands, NJ 07732

voice: (732) 872-3064

fax: (732) 872-3088

[John.Sibunka@noaa.gov](mailto:John.Sibunka@noaa.gov)

*updated July 8, 2005, G.Heimerdinger*

## Acquisition Description

Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.

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## Parameters

| Parameter       | Description                                                | Units           |
|-----------------|------------------------------------------------------------|-----------------|
| cruiseid        | cruise identification, e.g. EN330, for Endeavor cruise 330 |                 |
| year            | four digit year, local time                                |                 |
| inst            | instrument identifier (Bongo)                              |                 |
| station         | consecutive station number                                 |                 |
| station_std     | standard station number                                    |                 |
| tow             | bongo plankton tow station number                          |                 |
| lat             | latitude, at start of tow, negative = South                | decimal degrees |
| lon             | longitude, at start of tow, negative = West                | decimal degrees |
| month_local     | month of year, local time, (01-12)                         |                 |
| day_local       | day of month, local time, (01-31)                          |                 |
| time_local      | time at start of tow, local time                           | hours/minutes   |
| depth_w         | depth of water at start of tow                             | meters          |
| depth_tow_max   | maximum depth of the tow                                   | meters          |
| net             | Net identifier                                             |                 |
| haul_factor_std | Standard Haul Factor <sup>1</sup>                          |                 |
| taxon           | Taxonomic name of larval fish species                      |                 |
| num_caught      | Total number of fish eggs in the net                       |                 |

|         |                                                                                                                          |  |
|---------|--------------------------------------------------------------------------------------------------------------------------|--|
| num_st1 | Number of eggs caught in the first developmental stage; from just fertilized until blastopore almost closed.             |  |
| num_st2 | Number of eggs caught in development stage 2 from blastopore closed until tip of tail bud almost free from yolk surface. |  |
| num_st3 | Number of eggs caught in development stage 3 from just fertilized until blastopore almost closed.                        |  |
| num_st4 | Dead at capture, deteriorated.                                                                                           |  |
| num_st5 | Abnormal development, not assignable to a normal stage.                                                                  |  |
| num_st6 | 2(Substage of 3) from blastopore closed until tail free, but not yet twisted and flexed.                                 |  |
| num_st7 | 2(Substage of 3) from tail twisted and flexed, until embryo extends                                                      |  |
| num_st8 | 2(Substage of 3) Embryo extends > # and rence.                                                                           |  |
| num_st9 | 2(Substage of 3) Embryo extends > full circle around egg circumference.                                                  |  |

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## Instruments

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dataset-specific Instrument Name</b> | Bongo Nets                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Generic Instrument Name</b>          | Bongo Net                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Dataset-specific Description</b>     | 60 cm diameter Bongo nets (0.335 millimeter mesh)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Generic Instrument Description</b>   | <p>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 m<sup>3</sup>/minute when towing at a speed of two knots. More information: Ocean Instruments, Aquatic Research, Sea-Gear</p> |

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## Deployments

AL9505

|                    |                                                                                                                                                                                                                                                                                                                               |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57371">https://www.bco-dmo.org/deployment/57371</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9505/al9505rot.pdf">http://globec.who.edu/globec-dir/reports/al9505/al9505rot.pdf</a>                                                                                                                                                                                     |
| <b>Start Date</b>  | 1995-05-09                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1995-05-18                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9506

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|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57372">https://www.bco-dmo.org/deployment/57372</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9506/al9506new.html">http://globec.who.edu/globec-dir/reports/al9506/al9506new.html</a>                                                                                                                                                                                   |
| <b>Start Date</b>  | 1995-06-05                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1995-06-15                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9508

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57373">https://www.bco-dmo.org/deployment/57373</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/al9508/a9508rp2.HTM">http://globec.whoi.edu/globec-dir/reports/al9508/a9508rp2.HTM</a>                                                                                                                                                                                     |
| <b>Start Date</b>  | 1995-07-10                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1995-07-20                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9605

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57375">https://www.bco-dmo.org/deployment/57375</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/al9605/al9605.html">http://globec.whoi.edu/globec-dir/reports/al9605/al9605.html</a>                                                                                                                                                                                       |
| <b>Start Date</b>  | 1996-05-06                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1996-05-17                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9607

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57376">https://www.bco-dmo.org/deployment/57376</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                                         |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9607/AL9607.pdf">http://globec.who.edu/globec-dir/reports/al9607/AL9607.pdf</a>                                                                                                                                                                                                      |
| <b>Start Date</b>  | 1996-06-03                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1996-06-13                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9701

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57378">https://www.bco-dmo.org/deployment/57378</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                                         |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9701/cra19701.htm">http://globec.who.edu/globec-dir/reports/al9701/cra19701.htm</a>                                                                                                                                                                                                  |
| <b>Start Date</b>  | 1997-01-13                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1997-01-20                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9705

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57379">https://www.bco-dmo.org/deployment/57379</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9705/al9705.html">http://globec.who.edu/globec-dir/reports/al9705/al9705.html</a>                                                                                                                                                                                         |
| <b>Start Date</b>  | 1997-05-19                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1997-05-27                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9707

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57380">https://www.bco-dmo.org/deployment/57380</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9707/al9707.html">http://globec.who.edu/globec-dir/reports/al9707/al9707.html</a>                                                                                                                                                                                         |
| <b>Start Date</b>  | 1997-06-18                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1997-06-28                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9801

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57382">https://www.bco-dmo.org/deployment/57382</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                                         |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/al9801/al9801.html">http://globec.whoi.edu/globec-dir/reports/al9801/al9801.html</a>                                                                                                                                                                                                  |
| <b>Start Date</b>  | 1998-01-07                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1998-01-19                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9806

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57384">https://www.bco-dmo.org/deployment/57384</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                                         |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/al9806/al9806.html">http://globec.whoi.edu/globec-dir/reports/al9806/al9806.html</a>                                                                                                                                                                                                  |
| <b>Start Date</b>  | 1998-05-13                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1998-05-22                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9808

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57385">https://www.bco-dmo.org/deployment/57385</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                                         |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9808/al9808.html">http://globec.who.edu/globec-dir/reports/al9808/al9808.html</a>                                                                                                                                                                                                    |
| <b>Start Date</b>  | 1998-06-16                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1998-06-26                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9901

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57386">https://www.bco-dmo.org/deployment/57386</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                                         |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9901/al9901.html">http://globec.who.edu/globec-dir/reports/al9901/al9901.html</a>                                                                                                                                                                                                    |
| <b>Start Date</b>  | 1999-01-12                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1999-01-24                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9904

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57387">https://www.bco-dmo.org/deployment/57387</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                              |
| <b>Start Date</b>  | 1999-05-19                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1999-05-27                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### AL9906

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57388">https://www.bco-dmo.org/deployment/57388</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Albatross IV                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/al9906/al9906rpt.html">http://globec.who.edu/globec-dir/reports/al9906/al9906rpt.html</a>                                                                                                                                                                                   |
| <b>Start Date</b>  | 1999-06-14                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1999-06-24                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### EN261

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57401">https://www.bco-dmo.org/deployment/57401</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Endeavor                                                                                                                                                                                                                                                                                                                             |
| <b>Start Date</b>  | 1995-02-10                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1995-02-20                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

### EN263

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57403">https://www.bco-dmo.org/deployment/57403</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Endeavor                                                                                                                                                                                                                                                                                                                             |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/en263/EN263.pdf">http://globec.who.edu/globec-dir/reports/en263/EN263.pdf</a>                                                                                                                                                                                                          |
| <b>Start Date</b>  | 1995-03-13                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1995-03-24                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

### EN265

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57405">https://www.bco-dmo.org/deployment/57405</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Endeavor                                                                                                                                                                                                                                                                                                                             |
| <b>Start Date</b>  | 1995-04-11                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1995-04-22                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### EN276

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57413">https://www.bco-dmo.org/deployment/57413</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Endeavor                                                                                                                                                                                                                                                                                                                             |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/en276/EN276.pdf">http://globec.who.edu/globec-dir/reports/en276/EN276.pdf</a>                                                                                                                                                                                                          |
| <b>Start Date</b>  | 1996-01-10                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1996-01-22                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### EN278

|                    |                                                                                                                                                                                                                                                                                                                                          |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57414">https://www.bco-dmo.org/deployment/57414</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Endeavor                                                                                                                                                                                                                                                                                                                             |
| <b>Start Date</b>  | 1996-02-13                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1996-02-25                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

## EN282

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57415">https://www.bco-dmo.org/deployment/57415</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Endeavor                                                                                                                                                                                                                                                                                                                             |
| <b>Start Date</b>  | 1996-04-08                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1996-04-20                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

## EN320

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57427">https://www.bco-dmo.org/deployment/57427</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Endeavor                                                                                                                                                                                                                                                                                                                             |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/en320new/en320mda.htm">http://globec.who.edu/globec-dir/reports/en320new/en320mda.htm</a>                                                                                                                                                                                              |
| <b>Start Date</b>  | 1999-03-10                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1999-03-23                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### OC275

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57440">https://www.bco-dmo.org/deployment/57440</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                              |
| <b>Start Date</b>  | 1996-03-11                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1996-03-22                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### OC298

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57444">https://www.bco-dmo.org/deployment/57444</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/oc298/cruisereport.html">http://globec.whoi.edu/globec-dir/reports/oc298/cruisereport.html</a>                                                                                                                                                                                        |
| <b>Start Date</b>  | 1997-02-11                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1997-02-23                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### OC300

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57446">https://www.bco-dmo.org/deployment/57446</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/oc300/oc300rpt.mr7.html">http://globec.whoi.edu/globec-dir/reports/oc300/oc300rpt.mr7.html</a>                                                                                                                                                                                        |
| <b>Start Date</b>  | 1997-03-16                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1997-03-28                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### OC302

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| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57448">https://www.bco-dmo.org/deployment/57448</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.who.edu/globec-dir/reports/oc302/oce302.html">http://globec.who.edu/globec-dir/reports/oc302/oce302.html</a>                                                                                                                                                                                                      |
| <b>Start Date</b>  | 1997-04-22                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1997-05-02                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### OC317

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57451">https://www.bco-dmo.org/deployment/57451</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                              |
| <b>Start Date</b>  | 1998-02-06                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1998-02-19                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### OC319

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57452">https://www.bco-dmo.org/deployment/57452</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/oc319/oc319new/oc319rpt.8april98.htm">http://globec.whoi.edu/globec-dir/reports/oc319/oc319new/oc319rpt.8april98.htm</a>                                                                                                                                                              |
| <b>Start Date</b>  | 1998-03-15                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1998-03-27                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

## OC322

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|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57454">https://www.bco-dmo.org/deployment/57454</a>                                                                                                                                                                                                                                          |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                              |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/oc322/oc322.html">http://globec.whoi.edu/globec-dir/reports/oc322/oc322.html</a>                                                                                                                                                                                                      |
| <b>Start Date</b>  | 1998-04-15                                                                                                                                                                                                                                                                                                                               |
| <b>End Date</b>    | 1998-04-27                                                                                                                                                                                                                                                                                                                               |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m<sup>2</sup> of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

## OC336

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|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57459">https://www.bco-dmo.org/deployment/57459</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                   |
| <b>Report</b>      | <a href="http://globec.whoi.edu/globec-dir/reports/oc336/oc336cruise-report.html">http://globec.whoi.edu/globec-dir/reports/oc336/oc336cruise-report.html</a>                                                                                                                                                                 |
| <b>Start Date</b>  | 1999-02-11                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1999-02-23                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

#### OC341

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|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/57464">https://www.bco-dmo.org/deployment/57464</a>                                                                                                                                                                                                                               |
| <b>Platform</b>    | R/V Oceanus                                                                                                                                                                                                                                                                                                                   |
| <b>Report</b>      | <a href="#">table of contents</a>   <a href="#">back to top</a>   <a href="http://globec.whoi.edu/globec-dir/reports/oc341/reptoc341.html">http://globec.whoi.edu/globec-dir/reports/oc341/reptoc341.html</a>                                                                                                                 |
| <b>Start Date</b>  | 1999-04-16                                                                                                                                                                                                                                                                                                                    |
| <b>End Date</b>    | 1999-04-27                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b> | <p>broad-scale</p> <p><b>Acquisition Description</b></p> <p>Standard Haul Factor: numerical factor (multiplier) used to standardize catches to be expressed as number caught per 10m2 of sea surface area. Most haul factors range from 1 to 10. The Standard Haul Factor has not been applied to the data reported here.</p> |

## **U.S. GLOBEC Georges Bank (GB)**

**Website:** [http://globec.whoi.edu/globec\\_program.html](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)                      | <a href="#">unknown GB NSF</a>  |
| National Oceanic and Atmospheric Administration (NOAA) | <a href="#">unknown GB NOAA</a> |

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