

Nutrient concentrations from 41 R/V Alpha Helix and R/V Wecoma Long-Term Observation Program (LTOP) cruises to the Coastal Gulf of Alaska from 1997-2004 as part of the U.S. GLOBEC program (NEP project)

Website: <https://www.bco-dmo.org/dataset/2471>

Data Type: Cruise Results

Version: 1

Version Date: 2010-04-30

Project

» [U.S. GLOBEC Northeast Pacific](#) (NEP)

Program

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

Contributors	Affiliation	Role
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Abstract

Nutrient concentrations from 41 R/V Alpha Helix and R/V Wecoma Long-Term Observation Program (LTOP) cruises to the Coastal Gulf of Alaska from 1997-2004 as part of the U.S. GLOBEC program.

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Coverage

Spatial Extent: N:61.2601 E:-143.6689 S:57.7995 W:-150.9358

Temporal Extent: 1998-03-08 - 2004-07-05

Dataset Description

Nutrient Concentrations from AK-LTOP cruises

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Methods & Sampling

NEP-CGOA NUTRIENT data collected by Terry Whitledge.

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Data Files

File
cgoa_ltop_nut.csv (Comma Separated Values (.csv), 2.22 MB) MD5:8bc31926a7b8a241c7717f61dc99efa9 Primary data file for dataset ID 2471

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Parameters

Parameter	Description	Units
year	year	dimensionless
ship	Name of the ship.	dimensionless
cruise_id	Cruise ID Number	dimensionless
stn_no	Station Number within cruise	dimensionless
stn_id	Standard Station Name	dimensionless
lat	Latitude	decimal degrees (North is positive)
long	Longitude	decimal degrees (East is positive)
water_depth	Station Bottom Depth	meters
month_gmt	Month	in GMT
day_gmt	Day of month	in GMT
time_gmt	Time	in GMT
depth	Sample depth.	meters
PO4	Phosphate concentration	micromoles/L
SiOH4	Silicate concentration	micromoles/L
NO3_NO2	Nitrate+Nitrate concentration	micromoles/L
NO2	Nitrite concentration	micromoles/L
NH4	Ammonium concentration	micromoles/L
NO3	Nitrate concentration	micromoles/L

Instruments

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

Deployments

HX203

Website	https://www.bco-dmo.org/deployment/57503
Platform	R/V Alpha Helix
Start Date	1998-03-08
End Date	1998-03-15
Description	Cruise information and original data are available from the NSF R2R data catalog. Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX205

Website	https://www.bco-dmo.org/deployment/57504
Platform	R/V Alpha Helix
Start Date	1998-03-31
End Date	1998-04-07
Description	Cruise information and original data are available from the NSF R2R data catalog. Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX208

Website	https://www.bco-dmo.org/deployment/57505
Platform	R/V Alpha Helix
Start Date	1998-05-07
End Date	1998-05-14
Description	Cruise information and original data are available from the NSF R2R data catalog. Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX211

Website	https://www.bco-dmo.org/deployment/57506
Platform	R/V Alpha Helix
Start Date	1998-07-10
End Date	1998-07-17
Description	Cruise information and original data are available from the NSF R2R data catalog. Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX215

Website	https://www.bco-dmo.org/deployment/57507
Platform	R/V Alpha Helix
Start Date	1998-10-02
End Date	1998-10-09
Description	Cruise information and original data are available from the NSF R2R data catalog. Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX216

Website	https://www.bco-dmo.org/deployment/57508
Platform	R/V Alpha Helix
Start Date	1998-12-01
End Date	1998-12-08
Description	Cruise information and original data are available from the NSF R2R data catalog. Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX217

Website	https://www.bco-dmo.org/deployment/57509
Platform	R/V Alpha Helix
Start Date	1999-03-14
End Date	1999-03-21
Description	Cruise information and original data are available from the NSF R2R data catalog. Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX218

Website	https://www.bco-dmo.org/deployment/57510
Platform	R/V Alpha Helix
Start Date	1999-04-12
End Date	1999-04-19
Description	Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX219

Website	https://www.bco-dmo.org/deployment/57511
Platform	R/V Alpha Helix
Start Date	1999-05-06
End Date	1999-05-13
Description	Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX223

Website	https://www.bco-dmo.org/deployment/57512
Platform	R/V Alpha Helix
Start Date	1999-08-26
End Date	1999-09-02
Description	Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX225

Website	https://www.bco-dmo.org/deployment/57513
Platform	R/V Alpha Helix
Start Date	1999-10-05
End Date	1999-10-12
Description	Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX226

Website	https://www.bco-dmo.org/deployment/57514
Platform	R/V Alpha Helix
Start Date	1999-11-30
End Date	1999-12-07
Description	Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX228

Website	https://www.bco-dmo.org/deployment/57515
Platform	R/V Alpha Helix
Start Date	2000-03-07
End Date	2000-03-15
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX230

Website	https://www.bco-dmo.org/deployment/57516
Platform	R/V Alpha Helix
Start Date	2000-04-18
End Date	2000-04-26
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX231

Website	https://www.bco-dmo.org/deployment/57517
Platform	R/V Alpha Helix
Start Date	2000-05-17
End Date	2000-05-25
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX234

Website	https://www.bco-dmo.org/deployment/57518
Platform	R/V Alpha Helix
Start Date	2000-08-13
End Date	2000-08-23
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX237

Website	https://www.bco-dmo.org/deployment/57519
Platform	R/V Alpha Helix
Start Date	2000-10-03
End Date	2000-10-11
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX238

Website	https://www.bco-dmo.org/deployment/57520
Platform	R/V Alpha Helix
Start Date	2000-12-01
End Date	2000-12-09
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX239

Website	https://www.bco-dmo.org/deployment/57521
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx239cr.pdf
Start Date	2001-03-02
End Date	2001-03-13
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX241

Website	https://www.bco-dmo.org/deployment/57522
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx241cr.pdf
Start Date	2001-04-03
End Date	2001-04-14
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX243

Website	https://www.bco-dmo.org/deployment/57524
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx243cr.pdf
Start Date	2001-05-04
End Date	2001-05-14
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX246

Website	https://www.bco-dmo.org/deployment/57526
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx246cr.pdf
Start Date	2001-06-28
End Date	2001-07-09
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX248

Website	https://www.bco-dmo.org/deployment/57528
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx248cr.pdf
Start Date	2001-07-30
End Date	2001-08-08
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX252

Website	https://www.bco-dmo.org/deployment/57529
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx252cr.pdf
Start Date	2001-10-09
End Date	2001-10-18
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

HX253

Website	https://www.bco-dmo.org/deployment/57530
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx253cr.pdf
Start Date	2001-12-04
End Date	2001-12-11
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling NEP-CGOA NUTRIENT data collected by Terry Whitledge

W0307A

Website	https://www.bco-dmo.org/deployment/57615
Platform	R/V Wecoma
Report	http://globec.who.edu/nep/reports/cgoa_cruises/w0307acr.pdf
Start Date	2003-07-05
End Date	2003-07-14

HX254

Website	https://www.bco-dmo.org/deployment/57531
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx254cr.pdf
Start Date	2002-03-04
End Date	2002-03-13
Description	Original cruise data are available from the NSF R2R data catalog

HX257

Website	https://www.bco-dmo.org/deployment/57532
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx257cr.pdf
Start Date	2002-04-05
End Date	2002-04-14
Description	Original cruise data are available from the NSF R2R data catalog

HX258

Website	https://www.bco-dmo.org/deployment/57533
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx258cr.pdf
Start Date	2002-04-30
End Date	2002-05-09
Description	Original cruise data are available from the NSF R2R data catalog

HX262

Website	https://www.bco-dmo.org/deployment/57534
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx262cr.pdf
Start Date	2002-07-19
End Date	2002-07-27
Description	Original cruise data are available from the NSF R2R data catalog

HX263

Website	https://www.bco-dmo.org/deployment/57535
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx263cr.pdf
Start Date	2002-08-13
End Date	2002-08-22
Description	Original cruise data are available from the NSF R2R data catalog

HX267

Website	https://www.bco-dmo.org/deployment/57536
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx267cr.pdf
Start Date	2002-10-01
End Date	2002-10-10
Description	Original cruise data are available from the NSF R2R data catalog

HX268

Website	https://www.bco-dmo.org/deployment/57537
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx268cr.pdf
Start Date	2002-12-03
End Date	2002-12-11
Description	Original cruise data are available from the NSF R2R data catalog

HX269

Website	https://www.bco-dmo.org/deployment/57538
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx269cr.pdf
Start Date	2003-03-04
End Date	2003-03-13
Description	Original cruise data are available from the NSF R2R data catalog

HX270

Website	https://www.bco-dmo.org/deployment/57539
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx270cr.pdf
Start Date	2003-04-01
End Date	2003-04-10
Description	Original cruise data are available from the NSF R2R data catalog

HX272

Website	https://www.bco-dmo.org/deployment/57541
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx272cr.pdf
Start Date	2003-05-23
End Date	2003-06-01
Description	Original cruise data are available from the NSF R2R data catalog

HX276

Website	https://www.bco-dmo.org/deployment/57543
Platform	R/V Alpha Helix
Report	http://globec.who.edu/nep/reports/cgoa_cruises/hx276cr.pdf
Start Date	2003-08-13
End Date	2003-08-22
Description	Original cruise data are available from the NSF R2R data catalog

HX279

Website	https://www.bco-dmo.org/deployment/57544
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx279cr.pdf
Start Date	2003-10-08
End Date	2003-10-16
Description	Original cruise data are available from the NSF R2R data catalog

HX280

Website	https://www.bco-dmo.org/deployment/57546
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx280cr.pdf
Start Date	2003-12-02
End Date	2003-12-10
Description	Original cruise data are available from the NSF R2R data catalog

HX283

Website	https://www.bco-dmo.org/deployment/57547
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx283cr.pdf
Start Date	2004-05-03
End Date	2004-05-12
Description	Original cruise data are available from the NSF R2R data catalog

HX286

Website	https://www.bco-dmo.org/deployment/57548
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx286cr.pdf
Start Date	2004-06-27
End Date	2004-07-05
Description	Original cruise data are available from the NSF R2R data catalog

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Project Information

U.S. GLOBEC Northeast Pacific (NEP)

Website: <http://nepglobec.bco-dmo.org>

Coverage: Northeast Pacific Ocean, Gulf of Alaska

Program in a Nutshell

Goal: To understand the effects of climate variability and climate change on the distribution, abundance and production of marine animals (including commercially important living marine resources) in the eastern North Pacific. To embody this understanding in diagnostic and prognostic ecosystem models, capable of capturing the ecosystem response to major climatic fluctuations.

Approach: To study the effects of past and present climate variability on the population ecology and population dynamics of marine biota and living marine resources, and to use this information as a proxy for how the ecosystems of the eastern North Pacific may respond to future global climate change. The strong temporal variability in the physical and biological signals of the NEP will be used to examine the biophysical mechanisms through which zooplankton and salmon populations respond to physical forcing and biological interactions in the coastal regions of the two gyres. Annual and interannual variability will be studied directly through **long-term observations** and detailed **process studies**; variability at longer time scales will be examined through **retrospective analysis** of directly measured and proxy data. Coupled **biophysical models** of the ecosystems of these regions will be developed and tested using the process studies and data collected from the long-term observation programs, then further tested and improved by hindcasting selected retrospective data series.

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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
NSF Division of Ocean Sciences (NSF OCE)	OCE-0109078
National Oceanic and Atmospheric Administration (NOAA)	unknown NEP NOAA

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