CTD data from R/V Alpha Helix process cruises HX242, HX244, HX247, HX271, and HX275 in the Coastal Gulf of Alaska from 2001-2003 as part of the U.S. GLOBEC program (NEP project)

Website: https://www.bco-dmo.org/dataset/2473
Data Type: Cruise Results
Version: 1
Version Date: 2006-12-21

Project
» U.S. GLOBEC Northeast Pacific (NEP)

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

Contributors	Affiliation	Role
Strom, Suzanne	Western Washington University (WWU)	Principal Investigator
Allison, Dicky	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Abstract
CTD data from R/V Alpha Helix process cruises HX242, HX244, HX247, HX271, and HX275 in the Coastal Gulf of Alaska from 2001-2003 as part of the U.S. GLOBEC program.

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Coverage

Spatial Extent: **N**:60.656 **E**:-146.6073 **S**:58.0975 **W**:-150.4185
Temporal Extent: 2001-04-18 - 2003-08-11

Dataset Description

CTD Data from Process cruises in 2001 and 2003

These CTD data are from five process cruises conducted in 2001 and 2003 in the CGOA.

NOTE 1: On the two cruises (HX271 and HX275) from 2003, "press" is provided (in dBAR). However, for cruises HX242, HX244, and HX247 (all in 2001), "depth" in meters is used rather than "press" in dBar. Since for all practical purposes, depth in meters and pressure in dBar are identical, for all five cruises, this parameter is called pressure in displaying the data.

Data Contact:
Suzanne L. Strom
Western Washington University
Shannon Point Marine Center

1900 Shannon Point Road
Anacortes, WA 98221-4042
stroms@cc.wwu.edu
Phone: 360-293-2188
FAX: 360-293-1083

Methods & Sampling

These CTD data are from five process cruises conducted in 2001 and 2003 in the CGOA.

Data Processing Description

On the two cruises (HX271 and HX275) from 2003, 'press' is provided (in dBAR). However, for cruises HX242, HX244, and HX247 (all in 2001), 'depth' in meters is used rather than 'press' in dBar. Since for all practical purposes, depth in meters and pressure in dBar are identical, for all five cruises, this parameter is called pressure in displaying the data.

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Data Files

File
ctd_cgoa_proc.csv (Comma Separated Values (.csv), 24.87 MB) MD5:11118658bf4e8f53fd7e447675eeef6c Primary data file for dataset ID 2473

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Parameters

Parameter	Description	Units
year	Year	dimensionless
ship	Name of the vessel	dimensionless
cruise_id	Unique identifier for the cruise.	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
min_press	Minimum Pressure of Cast	dBar
max_press	Maximum Pressure of Cast	dBar
month_gmt	Month	GMT
day_gmt	Day of month	GMT
time_gmt	Time	GMT
press	Pressure	dBar *SEE NOTE 1 BELOW
temp	Temperature	Degrees Celsius
salinity	Salinity	psu
sigma_t	Sigma-t	kg/m³
dyn_height	Dynamic Height	Dynamic Decimeters
fluor	Fluorescence	0-5 Volts
trans	Transmittance	0-5 Volts
PAR	Photosynthetically Active Radiation	0-5 Volts
depth_to_bottom	altimeter output	0-5 Volts
interp_code	0=None; 1=extrapolated; 2=interpolated	dimensionless

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Instruments

Dataset-specific Instrument Name	Conductivity, Temperature, Depth
Generic Instrument Name	CTD - profiler
Dataset-specific Description	CTD measurements taken, CTD unit unidentified
Generic Instrument Description	The Conductivity, Temperature, Depth (CTD) unit is an integrated instrument package designed to measure the conductivity, temperature, and pressure (depth) of the water column. The instrument is lowered via cable through the water column. It permits scientists to observe the physical properties in real-time via a conducting cable, which is typically connected to a CTD to a deck unit and computer on a ship. The CTD is often configured with additional optional sensors including fluorometers, transmissometers and/or radiometers. It is often combined with a Rosette of water sampling bottles (e.g. Niskin, GO-FLO) for collecting discrete water samples during the cast. This term applies to profiling CTDs. For fixed CTDs, see https://www.bco-dmo.org/instrument/869934.

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Deployments

HX242

Website	https://www.bco-dmo.org/deployment/57523
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx242cr.pdf
Start Date	2001-04-17
End Date	2001-05-01
Description	Original cruise data are available from the NSF R2R data catalog **Methods & Sampling** These CTD data are from five process cruises conducted in 2001 and 2003 in the CGOA. **Processing Description** On the two cruises (HX271 and HX275) from 2003, 'press' is provided (in dBAR). However, for cruises HX242, HX244, and HX247 (all in 2001), 'depth' in meters is used rather than 'press' in dBar. Since for all practical purposes, depth in meters and pressure in dBar are identical, for all five cruises, this parameter is called pressure in displaying the data.

HX244

Website	https://www.bco-dmo.org/deployment/57525
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx244cr.pdf
Start Date	2001-05-17
End Date	2001-05-31
Description	Original cruise data are available from the NSF R2R data catalog **Methods & Sampling** These CTD data are from five process cruises conducted in 2001 and 2003 in the CGOA. **Processing Description** On the two cruises (HX271 and HX275) from 2003, 'press' is provided (in dBAR). However, for cruises HX242, HX244, and HX247 (all in 2001), 'depth' in meters is used rather than 'press' in dBar. Since for all practical purposes, depth in meters and pressure in dBar are identical, for all five cruises, this parameter is called pressure in displaying the data.

HX247

Website	https://www.bco-dmo.org/deployment/57527
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx247cr.pdf
Start Date	2001-07-12
End Date	2001-07-26
Description	Original cruise data are available from the NSF R2R data catalog **Methods & Sampling** These CTD data are from five process cruises conducted in 2001 and 2003 in the CGOA. **Processing Description** On the two cruises (HX271 and HX275) from 2003, 'press' is provided (in dBAR). However, for cruises HX242, HX244, and HX247 (all in 2001), 'depth' in meters is used rather than 'press' in dBar. Since for all practical purposes, depth in meters and pressure in dBar are identical, for all five cruises, this parameter is called pressure in displaying the data.

HX271

Website	https://www.bco-dmo.org/deployment/57540
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx271cr.pdf
Start Date	2003-04-24
End Date	2003-05-15
Description	Original cruise data are available from the NSF R2R data catalog **Methods & Sampling** These CTD data are from five process cruises conducted in 2001 and 2003 in the CGOA. **Processing Description** On the two cruises (HX271 and HX275) from 2003, 'press' is provided (in dBAR). However, for cruises HX242, HX244, and HX247 (all in 2001), 'depth' in meters is used rather than 'press' in dBar. Since for all practical purposes, depth in meters and pressure in dBar are identical, for all five cruises, this parameter is called pressure in displaying the data.

HX275

Website	https://www.bco-dmo.org/deployment/57542
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx275cr.pdf
Start Date	2003-07-20
End Date	2003-08-12
Description	Original cruise data are available from the NSF R2R data catalog **Methods & Sampling** These CTD data are from five process cruises conducted in 2001 and 2003 in the CGOA. **Processing Description** On the two cruises (HX271 and HX275) from 2003, 'press' is provided (in dBAR). However, for cruises HX242, HX244, and HX247 (all in 2001), 'depth' in meters is used rather than 'press' in dBar. Since for all practical purposes, depth in meters and pressure in dBar are identical, for all five cruises, this parameter is called pressure in displaying the data.

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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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