CTD data from 37 cruises of the California Current System (CCS) Long-term Observation Program (LTOP) in the Northeast Pacific from 1997-2004 as part of the U.S. GLOBEC program (NEP project)

Website: https://www.bco-dmo.org/dataset/2455
Data Type: Cruise Results
Version: 1
Version Date: 2001-02-09

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

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

Contributors	Affiliation	Role
Fleischbein, Jane	Oregon State University (OSU-CEOAS)	Principal Investigator
Allison, Dicky	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Abstract
CTD data from 37 cruises of the California Current System (CCS) Long-term Observation Program (LTOP) in the Northeast Pacific from 1997-2004 as part of the U.S. GLOBEC program.

Table of Contents

- Coverage
- Dataset Description
  - Methods & Sampling
  - Data Processing Description
- Data Files
- Parameters
- Instruments
- Deployments
- Project Information
- Program Information
- Funding

Coverage

Spatial Extent: **N**:44.6567 **E**:-123.4417 **S**:38.125 **W**:-126.9833
Temporal Extent: 1998-01-30 - 2004-09-09

Dataset Description

Northeast Pacific CTD Data
Contact: Jane Fleischbein

More information is available in the following data reports (PDF's):
1997-1998 Report - Cruises W9707A, W9709B, W9711C, W9801B, W9804A, AR9806, AR9807, W9808A, W9809A, and W9811A.
1999-2000 Report - Cruises W9902A, W9904B, W9907A, W9909C, W9911A, W0002A, W0004B, W0007A, and W0009A.
2001 Report - Cruises W0101B, W0101C, W0103A, W0103B, W0107A, W0109A, W0110A, and W0111B.
2002-2003 Report - Cruises W0202A, W0204A, W0207A, AT7-21, W0212A, W0302A, W0304A, NH0307A, and W0309B.

2004 Report - Cruises W0408D and W0409A.

Methods & Sampling

Refer to the data reports above and to the CCS LTOP website.

Data Processing Description

Parameter names were changed to conform to BCO-DMO convention; BCO-DMO corrected the date and month values for stations 24 and 25 of the W9711C cruise (month and day were reversed). 05/29/12.

[table of contents | back to top]

Data Files

File
nepctd.csv (Comma Separated Values (.csv), 54.38 MB) MD5:59fe5ae6c8f018e780ff2a4d874266dc Primary data file for dataset ID 2455

[table of contents | back to top]

Parameters

Parameter	Description	Units
cruiseid	Cruise identification (e.g. W0101C = R/V Wecoma cruise 0101C).	n/a
year	Year (4 digits)	n/a
station	Station number	n/a
station_name	Name of station	n/a
day	Day	n/a
month	Month	n/a
time	Time	n/a
depth_bottom	Bottom depth, in meters.	Meters
lat	Latitude; positive = north.	Decimal degrees

lon	Longitude; positive = east.	Decimal degrees
press	Pressure, (depth of sample recording).	Decibars
temp	Water temperature.	Degrees celsius
potemp	Potential temperature; originally named 'POT_T'.	degrees C
sigma_0	Potential density (sigma-t).	unknown
spvol_diff	Specific volume anomaly (he difference between the in situ specific volume and the specific volume of seawater at the same pressure). Originally named 'SP_V_AN'.	CL/T
dyn_height	Dynamic height; originally named 'DYN_HT'. Dynamic height is the integral of the specific volume over pressure. Measured in joules per kilogram.	J/kg
flvolt	Fluorometer voltage reading.	Volts
O2_v	Oxygen current in volts. Originally named 'O2C'.	Volts
O2_temp	Oxygen temperature. Originally named 'O2T'.	Degrees celsius
O2	Oxygen concentration (called 'O2_2' in cruises prior to W0007A).	mL/L
light_trans	Light transmission. Measured in volts through cruise W0007A; measured in % light transmission after cruise W0007A. Originally named 'TRN'.	% or volts
O2_2	Dissolved oxygen measurement from cruises prior to and including W0007A. Cruises after W0007A use 'O2'. Column originally named 'O2S'.	mL/L
sal	Salinity	dimensionless

[table of contents | back to top]

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.

[table of contents | back to top]

Deployments

AR9807

Website	https://www.bco-dmo.org/deployment/57489
Platform	R/V McArthur
Start Date	1998-06-02
End Date	1998-06-05
Description	**Methods & Sampling** Northeast Pacific CTD Data

AT7-21

Website	https://www.bco-dmo.org/deployment/57490
Platform	R/V Atlantis
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/sep02cr.pdf
Start Date	2002-09-27
End Date	2002-10-03
Description	funded by NSF OCE-0000733 UNOLS schedule link The original data from this cruise are available from the NSF R2R data catalog. **Methods & Sampling** Northeast Pacific CTD Data

NH0307A

Website	https://www.bco-dmo.org/deployment/57560
Platform	R/V New Horizon
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/jul03cr.pdf
Start Date	2003-07-02
End Date	2003-07-08
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0002A

Website	https://www.bco-dmo.org/deployment/57596
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/feb00cr.pdf
Start Date	2000-02-01
End Date	2000-02-03
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0004B

Website	https://www.bco-dmo.org/deployment/57597
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/apr00cr.pdf
Start Date	2000-04-11
End Date	2000-04-17
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0007A

Website	https://www.bco-dmo.org/deployment/57599
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/jul00cr.pdf
Start Date	2000-07-07
End Date	2000-07-13
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0009A

Website	https://www.bco-dmo.org/deployment/57601
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/sep00cr.pdf
Start Date	2000-09-07
End Date	2000-09-12
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0101C

Website	https://www.bco-dmo.org/deployment/57602
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/jan01cr.pdf
Start Date	2001-01-27
End Date	2001-01-29
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0103B

Website	https://www.bco-dmo.org/deployment/57603
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/mar01cr.pdf
Start Date	2001-03-20
End Date	2001-03-24
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0107A

Website	https://www.bco-dmo.org/deployment/57604
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/jul01cr.pdf
Start Date	2001-07-06
End Date	2001-07-09
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0109A

Website	https://www.bco-dmo.org/deployment/57605
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/sep01cr.pdf
Start Date	2001-09-04
End Date	2001-09-10
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0111B

Website	https://www.bco-dmo.org/deployment/57606
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/nov01cr.pdf
Start Date	2001-11-27
End Date	2001-11-29
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0202A

Website	https://www.bco-dmo.org/deployment/57607
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/feb02cr.pdf
Start Date	2002-02-19
End Date	2002-02-21
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0204A

Website	https://www.bco-dmo.org/deployment/57608
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/apr02cr.pdf
Start Date	2002-04-04
End Date	2002-04-10
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0207A

Website	https://www.bco-dmo.org/deployment/57610
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/jul02cr.pdf
Start Date	2002-07-09
End Date	2002-07-15
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0212A

Website	https://www.bco-dmo.org/deployment/57611
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/dec02cr.pdf
Start Date	2002-12-03
End Date	2002-12-05
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0302A

Website	https://www.bco-dmo.org/deployment/57612
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/feb03cr.pdf
Start Date	2003-02-14
End Date	2003-02-16
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0304A

Website	https://www.bco-dmo.org/deployment/57613
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/apr03cr.pdf
Start Date	2003-04-01
End Date	2003-04-06
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0309B

Website	https://www.bco-dmo.org/deployment/57617
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/sep03cr.pdf
Start Date	2003-09-26
End Date	2003-10-01
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0408D

Website	https://www.bco-dmo.org/deployment/57618
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/aug04cr.pdf
Start Date	2004-08-30
End Date	2004-09-03
Description	**Methods & Sampling** Northeast Pacific CTD Data

W0409A

Website	https://www.bco-dmo.org/deployment/57619
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/aug04cr.pdf
Start Date	2004-09-07
End Date	2004-09-09
Description	**Methods & Sampling** Northeast Pacific CTD Data

W9707B

Website	https://www.bco-dmo.org/deployment/57620
Platform	R/V Wecoma
Start Date	1997-07-28
End Date	1997-07-30
Description	**Methods & Sampling** Northeast Pacific CTD Data

W9709B

Website	https://www.bco-dmo.org/deployment/57621
Platform	R/V Wecoma
Start Date	1997-09-19
End Date	1997-09-20

W9711C

Website	https://www.bco-dmo.org/deployment/57622
Platform	R/V Wecoma
Start Date	1997-11-15
End Date	1997-11-22

W9801B

Website	https://www.bco-dmo.org/deployment/57623
Platform	R/V Wecoma
Start Date	1998-01-30
End Date	1998-02-02

W9804A

Website	https://www.bco-dmo.org/deployment/57624
Platform	R/V Wecoma
Start Date	1998-04-04
End Date	1998-04-10

W9808A

Website	https://www.bco-dmo.org/deployment/57625
Platform	R/V Wecoma
Start Date	1998-08-06
End Date	1998-08-14

W9809A

Website	https://www.bco-dmo.org/deployment/57626
Platform	R/V Wecoma
Start Date	1998-09-24
End Date	1998-09-26

W9811A

Website	https://www.bco-dmo.org/deployment/57627
Platform	R/V Wecoma
Start Date	1998-11-16
End Date	1998-11-20

W9902A

Website	https://www.bco-dmo.org/deployment/57628
Platform	R/V Wecoma
Start Date	1999-02-17
End Date	1999-02-18

W9904B

Website	https://www.bco-dmo.org/deployment/57629
Platform	R/V Wecoma
Start Date	1999-04-19
End Date	1999-04-22

W9907A

Website	https://www.bco-dmo.org/deployment/57630
Platform	R/V Wecoma
Start Date	1999-07-03
End Date	1999-07-09

W9909C

Website	https://www.bco-dmo.org/deployment/57631
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/sep99cr.pdf
Start Date	1999-09-22
End Date	1999-09-27

W9911A

Website	https://www.bco-dmo.org/deployment/57632
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/nov99cr.pdf
Start Date	1999-11-03
End Date	1999-11-05

AR9806

Website	https://www.bco-dmo.org/deployment/57972
Platform	R/V McArthur
Start Date	1998-05-26
End Date	1998-05-26

W0101B

Website	https://www.bco-dmo.org/deployment/58801
Platform	R/V Wecoma
Start Date	2001-01-24
End Date	2001-01-25
Description	W0101B served as an instrument test cruise for a fiber-optic tow cable used during the 2001 and 2003 COAST (Coastal Ocean Advance in Shelf Transport) COOP project. CTD / rosette sampling also occurred along the Newport Hydrographic line (44 ° 39.1 'N) from 1-45 nautical miles off the coast. Described breifly in this LTOP data report.

W0103A

Website	https://www.bco-dmo.org/deployment/58827
Platform	R/V Wecoma
Start Date	2001-03-15
End Date	2001-03-18
Description	The primary purpose of cruise W0103A was to service the GLOBEC LTOP moorings off Newport, Coos Bay, and Rogue River. CTD stations were also completed along the standard FM and RR lines. This cruise is discussed in the 2001 Hydrographic Data Report.

[table of contents | back to top]

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.

[table of contents | back to top]

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).

[table of contents | back to top]

Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-0000733
NSF Division of Ocean Sciences (NSF OCE)	OCE-9732386
National Oceanic and Atmospheric Administration (NOAA)	NA67RJ0151 (NEP)
National Oceanic and Atmospheric Administration (NOAA)	NA86OP0589 (NEP)

[table of contents | back to top]