

CTD files (netcdf format originally) from NOAA/PMEL FOCI cruises from multiple cruises in coastal Gulf of Alaska, Northeast Pacific, CGOA, SE Bering Sea from 2001-2004 (NEP project)

Website: <https://www.bco-dmo.org/dataset/3032>

Version: 2007-10-03

Project

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

Program

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

Contributors	Affiliation	Role
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Dataset Description

CTD data collected by NOAA/PMEL/EcoFOCI:
Northeast Pacific - Coastal Gulf of Alaska
Ecosystems & Fisheries Oceanography Coordinated Investigations (NOAA/PMEL/EcoFOCI)

Project Principal Investigators for CTD data:
Phyllis Stabeno and Nancy Kachel
Nutrient data analysis: Calvin Mordy

Methods & Sampling

CTD data are from process cruises conducted as part of GLOBEC 2001-2004 in the Coastal Gulf of Alaska

Data Processing Description

BCO-DMO changed parameter names from original PMEL codes. Use the table below to interpret weather and sea-state codes.

EcoFOCI data: Weather and Sea-State Codes

Code	Sea State (ft.)	Visibility (NM)	Cloud Type	Weather	Code
0	0.0 ft - glassy	<00.02	cirrus	clear	0
1	0.0-0.3 ft - rippled	00.02-00.10	cirrocumulus	partly cloudy	1
2	0.3-1.6 ft - wavelet	00.10-00.25	cirrostratus	continuous clouds	2
3	1.6-4.1 ft - slight	00.25-00.50	altocumulus	blowing snow	3
4	4.1-8.2 ft - moderate	00.50-01.00	altostratus	fog, thick dust, haze	4
5	8.2-13.1 ft - rough	01.00-02.00	nimbostratus	drizzle	5
6	13.1-19.7 ft - very rough	02.00-05.00	stratocumulus	rain	6
7	19.7-29.5 ft - high	05.00-10.00	stratus	snow or rain/snow mix	7
8	29.5-45.9 ft - very high	10.00-25.00	cumulus	showers	8
9	>45.9 ft - phenomenal	>25.00	cumulonimbus	thunderstorms	9

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Parameters

Parameter	Description	Units
lat	Latitude, negative = South.	decimal degrees
cruiseid	Identifier of the cruise (e.g. hx284 = R/V Alpha Helix cruise number 284).	N/A
year	Year of the cruise in YYYY format.	N/A
cast	Cast number.	N/A
lon	Longitude, negative = West.	decimal degrees
julian_day	Days since an arbitrary beginning. Used by PMEL's netCDF format.	N/A
msec_since_00	Milliseconds since midnight.	milliseconds
depth_w	Depth of water at cast.	meters
station	Station name.	N/A
water_mass	Water mass code: B = Bering, S = Shelikof, G = Gulf of Alaska.	N/A
weather	Weather conditions code. 0-9 (0=clear); see table above under 'Processing Description'.	N/A

sea_state	Sea state code; 0-9 (0=glassy), see table above under 'Processing Description'.	n/a
press_bar	Atmospheric pressure as measured by barometer.	millibars
wind_dir	Direction from which the wind blows.	degrees True
wind_speed	Wind speed.	knots
visibility	Visibility; code 0-9 (0= 25 nm) see table above under 'Processing Description';.	N/A
cloud_type	Cloud type, code 0-9; See table above under 'Processing Description'.	N/A
cloud_amount	Cloud cover amount, code 0-9; (0=clear, 9=maximum cover).	N/A
temp_air	Dry air temperature.	degrees Celsius
depth	Depth at which the measurement was taken.	meters
temp	Temperature. PMEL name = T_28.	degrees Celsius
temp2	Secondary Temperature; PMEL name = T2_35.	degrees Celsius
PAR	Photosynthetically active radiation. PMEL name = PAR_905.	uEin m-2 s-1
flvolt	Raw fluorometer reading in volts; from CTD. PMEL name = rFV_971.	volts
trans	Transmissometry from CTD. Measured as a percentage. PMEL name = Tr_904.	%
O2_umol_kg	Dissolved oxygen calculated from CTD values. PMEL name = O_65.	umol/kg
sigma_t	Sigma-t (kg/m ³). PMEL name = ST_70.	kg m-3
par_v	Photosynthetically Active Radiation in volts (instrument units). PMEL name = PAR_916.	volts
flvolt2	Voltage of Wetlabs wetstar fluorometer. PMEL name = VWS_975.	volts
flvolt3	Voltage of SeaPoint fluorometer. PMEL name = VSP_976.	volts
sal	Salinity in practical salinity units (PSU). PMEL name = S_41.	PSU
sal2	Additional measurement of salinity in practical salinity units (PSU). PMEL name = S_42.	PSU
dynh_0	Dynamic meters. PMEL name = DYN_10.	meters
fluor	Sea Point fluorometer chlorophyll. PMEL name = fSP_974.	ug/L
fluor2	Wetlabs wetstar fluorometer chlorophyll. PMEL name = fWS_973.	ug/L
pressure	Alternate measure of depth used in some cruises.	meters

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Instruments

Dataset-specific Instrument Name	Anemometer
Generic Instrument Name	Anemometer
Generic Instrument Description	An anemometer is a device for measuring the velocity or the pressure of the wind. It is commonly used to measure wind speed. Aboard research vessels, it is often mounted with other meteorological instruments and sensors.

Dataset-specific Instrument Name	Barometer
Generic Instrument Name	Barometer
Generic Instrument Description	A barometer is an instrument used to measure atmospheric pressure. There are many types of barometers identified by make and model and method of measurement.

Dataset-specific Instrument Name	Conductivity, Temperature, Depth
Generic Instrument Name	CTD - profiler
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 .

Dataset-specific Instrument Name	Meteorological Station
Generic Instrument Name	Meteorological Station
Generic Instrument Description	MET station systems are designed to record meteorological information on board ships or mounted on moorings. These are commonly referred to as EMET (Electronic Meteorological Packages) or IMET (Improved Meteorological Packages) systems. These sensor packages record measurements of sea surface temperature and salinity, air temperature, wind speed and direction, barometric pressure, solar and long-wave radiation, humidity and precipitation.

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Deployments

MF0105

Website	https://www.bco-dmo.org/deployment/57968
Platform	R/V Miller Freeman
Report	http://globec.who.edu/nep/reports/psullivan/mf0105_rpt.pdf
Start Date	2001-04-28
End Date	2001-05-08

MF0111

Website	https://www.bco-dmo.org/deployment/57554
Platform	R/V Miller Freeman
Report	http://globec.who.edu/nep/reports/psullivan/mf0111.pdf
Start Date	2001-09-21
End Date	2001-09-29

RB0103a

Website	https://www.bco-dmo.org/deployment/57969
Platform	NOAA Ship Ronald H. Brown
Report	http://globec.who.edu/nep/reports/psullivan/rb0103_leg1_rpt.pdf
Start Date	2001-05-06
End Date	2001-05-13
Description	Leg 1 Dutch Harbor, AK to Seward, AK This cruise was divided into three legs: RB0103a - Leg 1 FOCI deployment report - 06 May 2001 to 13 May 2001 RB0103b - Leg 2 FOCI deployment report - 13 May 2001 to 23 May 2001 RB0103L3 - Leg 3 FOCI deployment report - 25 May 2001 to 08 June 2001

KM0309B

Website	https://www.bco-dmo.org/deployment/57552
Platform	R/V Kilo Moana
Report	http://globec.who.edu/nep/reports/cgoa_cruises/KM0305_FCI.pdf
Start Date	2003-04-18
End Date	2003-05-18
Description	<p>There were two legs to this cruise: Leg 1 Report (known by cruise ID KM0305) - 18 April 2003 to 27 April 2003 Leg 2 Report (known by cruise ID KM0309B) - 29 April 2003 to 18 May 2003 Cruise information and original data are available from the NSF R2R data catalog.</p> <p>Methods & Sampling</p> <p>Note: CTD data are provided for both legs of cruise KM0309 (dates 18 April 2003 to 18 May 2003). The first and second legs are also known as KM0305 and KM0309B, respectively.</p>

KM0313

Website	https://www.bco-dmo.org/deployment/57553
Platform	R/V Kilo Moana
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/km0313cr.pdf
Start Date	2003-09-13
End Date	2003-09-28
Description	Cruise information and original data are available from the NSF R2R data catalog.

MF0303

Website	https://www.bco-dmo.org/deployment/57970
Platform	R/V Miller Freeman
Report	http://globec.whoi.edu/nep/reports/psullivan/mf0303_rpt.pdf
Start Date	2003-02-24
End Date	2003-03-07

HX287

Website	https://www.bco-dmo.org/deployment/57549
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx287cr.pdf
Start Date	2004-07-08
End Date	2004-07-19
Description	Original cruise data are available from the NSF R2R data catalog Methods & Sampling Update: Corrected location id#165757 from lat=51.2307 to 57.2307. It was way out of line from the others. 20100524, njc:

HX284

Website	https://www.bco-dmo.org/deployment/57971
Platform	R/V Alpha Helix
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/hx284cr.pdf
Start Date	2004-05-15
End Date	2004-05-26
Description	Original cruise data are available from the NSF R2R data catalog

RB0103b

Website	https://www.bco-dmo.org/deployment/57575
Platform	NOAA Ship Ronald H. Brown
Report	http://globec.whoi.edu/nep/reports/cgoa_cruises/rb0103cr.pdf
Start Date	2001-05-13
End Date	2001-05-23
Description	FOCI Cruise RB0103 Leg 2 Seward, AK to Kodiak, AK This cruise was divided into three legs: RB0103a - Leg 1 FOCI deployment report - 06 May 2001 to 13 May 2001 RB0103b - Leg 2 FOCI deployment report - 13 May 2001 to 23 May 2001 RB0103L3 - Leg 3 FOCI deployment report - 25 May 2001 to 08 June 2001

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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
National Oceanic and Atmospheric Administration (NOAA)	unknown NEP NOAA
National Science Foundation (NSF)	unknown NEP NSF

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