Link to SeaSoar CTD Data from R/V Wecoma cruise W0005A in the Northeast Pacific in 2000 as part of the U.S. GLOBEC program (NEP project)

Website: https://www.bco-dmo.org/dataset/2467
Version: 2007-04-16

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

W0005 R/V Wecoma 29 May - 17 June 2000

SeaSoar data from the U.S. GLOBEC Northeast Pacific Program
are available from the SeaSoar Web Site
at Oregon State University
Contact Jack Barth at OSU (Phone: 541-737-1607; email barth@oce.orst.edu)

SeaSoar data are available in two formats:

"1Hz data" or "gridded".

Each of these is described below.

1Hz Data

The *.dat2c files give final 1Hz SeaSoar CTD data.

Here is the first line of inshore.line1.dat2c:

  44.64954 -125.25666 108.7 8.6551 33.5239 26.0164 8.6439 26.0181 155.64019
000603152152 0001 0.069 0.288 0.476   0.23

The format of the *.dat2c files is given by:

    col 1: latitude (decimal degrees)
    col 2: longitude (decimal degrees)
    col 3: pressure (dbars)
    col 4: temperature (C)
    col 5: salinity (psu)

col 6: Sigma-t (kg/cubic meter)
    col 7: potential temperature (C)
    col 8: sigma-theta (kg/cubic meter)
    col 9: time (decimal year-day of 2000)
    col 10: date and time (integer year, month, day, hour, minute, second)
    col 11: flag
    col 12: PAR (volts)
    col 13: FPK010 FL (violet filter) (volts)
    col 14: FPK016 FL (green filter) (volts)
    col 15: chlorophyl-a (micro g/liter)

The ones place of the flags variable indicates which of the
two sensor pairs was selected as the preferred sensor, giving
the values for T, S, and sigma-t:

        0 indicates use of sensor pair 1 (T1, C1)
        1 indicates use of sensor pair 2 (T2, C2)

Voltage values (columns 12 - 14) are in the range of 0-5 volts.
A value of 9.999 indicates "no value" for those columns

Chlorophyll was calculated based on the voltage values of
the green filtered FPK016; if that FPAK was 9-filled, then the
chlorophyll value was set at 999.99; if the calibrated value
was negative (due to noise in the calibration) the chlorophyll
value was set at 0.00; otherwise the calibration equation
used was:

      chl_a = 7.6727(volts) - 3.4208

Gridded Data

The *1.25km files give the final SeaSoar CTD data gridded
at a spacing of 1.25 km in the horizontal, and 2 db in the
vertical. In general this was used for the mapping surveys
that were on the continental shelf.

The *2.5km files give the final SeaSoar CTD data gridded at
a spacing of 2.5 km in the horizontal (and 2 db in the
vertical). These were used for the deeper, offshore survey.

Here is the first line of inshore.line1.1.25km:

   6.25   155.92008   44.651726   -124.13853   1.0 9 9.5228777
    33.127800   25.569221   240.63866   9.5227690
0.24063867E-01 3.7872221   1.1320001   0.78988892

The format of the *km files is given by:

    col 1 = distance   (km)
    col 2 = julian day + fractional day (noon, Jan 1 = 1.5)
    col 3 = latitude   (decimal degrees)
    col 4 = longitude   (decimal degress)
    col 5 = pressure   (dbar)
    col 6 = count
    col 7 = temperature   (degrees C)
    col 8 = salinity   (psu)
    col 9 = density (sigma-t)   (kg/cubic meter)
    col 10 = specific vol anomaly (1.0E-8 cubic meter/kg)
    col 11 = potential temperature (degrees C)
    col 12 = dynamic height   (dynamic meters)
    col 13 = PAR   (volts)
    col 14 = FPK010   (volts)   (violet filter)
    col 15 = FPK016   (volts)   (green filter)

"missing data" was set at 1.0e35

columns 1 - 4 give the average location and time of the
values contained in the column at that location. The
column gives values for every two dbars of depth, starting at

1db and extending down to a value at 121 db. The column
then shifts to the next location, 1.25km further along the
line. If we are working with the 2.5km sections, then the column
goes down to a value of 329 db, and the next column then shifts
2.5km further along the line.

For the E-W lines, column 1 gives the distance from the coastline;
for the N-S lines, column 1 gives the distance from southernmost point.

column 6 (count) gives the number of samples in that 2db bin

Data Files

File
w0005seasoar.csv(Comma Separated Values (.csv), 158 bytes) MD5:e37488a75b6c8927bb656d1ec9bd3251 Primary data file for dataset ID 2467

Parameters

Parameter	Description	Units
link	Link to U.S. GLOBEC Data Acknowledgement Policy page.	
description	Dataset brief description.	

Instruments

Dataset-specific Instrument Name	CTD SeaSoar
Generic Instrument Name	CTD SeaSoar
Dataset-specific Description	CTD measurements taken during a SeaSoar tow.
Generic Instrument Description	CTD measurements taken during a SeaSoar tow.

Deployments

W0005A

Website	https://www.bco-dmo.org/deployment/57598
Platform	R/V Wecoma
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/w0005a/w0005acr.pdf
Start Date	2000-05-29
End Date	2000-06-17
Description	**Methods & Sampling** W0005 R/V Wecoma 29 May - 17 June 2000 SeaSoar data from the U.S. GLOBEC Northeast Pacific Program are available from the SeaSoar Web Site at Oregon State University Contact Jack Barth at OSU (Phone: 541-737-1607; email barth@oce.orst.edu) **Processing Description** SeaSoar data are available in two formats: "1Hz data" or "gridded". Each of these is described below. 1Hz Data -------- The *.dat2c files give final 1Hz SeaSoar CTD data. Here is the first line of inshore.line1.dat2c: 44.64954 -125.25666 108.7 8.6551 33.5239 26.0164 8.6439 26.0181 155.64019 000603152152 0001 0.069 0.288 0.476 0.23 The format of the *.dat2c files is given by: col 1: latitude (decimal degrees) col 2: longitude (decimal degrees) col 3: pressure (dbars) col 4: temperature (C) col 5: salinity (psu) col 6: Sigma-t (kg/cubic meter) col 7: potential temperature (C) col 8: sigma-theta (kg/cubic meter) col 9: time (decimal year-day of 2000) col 10: date and time (integer year, month, day, hour, minute, second) col 11: flag col 12: PAR (volts) col 13: FPK010 FL (violet filter) (volts) col 14: FPK016 FL (green filter) (volts) col 15: chlorophyl-a (micro g/liter) The ones place of the flags variable indicates which of the two sensor pairs was selected as the preferred sensor, giving the values for T, S, and sigma-t: 0 indicates use of sensor pair 1 (T1, C1) 1 indicates use of sensor pair 2 (T2, C2) Voltage values (columns 12 - 14) are in the range of 0-5 volts. A value of 9.999 indicates "no value" for those columns Chlorophyll was calculated based on the voltage values of the green filtered FPK016; if that FPAK was 9-filled, then the chlorophyll value was set at 999.99; if the calibrated value was negative (due to noise in the calibration) the chlorophyll value was set at 0.00; otherwise the calibration equation used was: chl_a = 7.6727(volts) - 3.4208 Gridded Data ------------ The *1.25km files give the final SeaSoar CTD data gridded at a spacing of 1.25 km in the horizontal, and 2 db in the vertical. In general this was used for the mapping surveys that were on the continental shelf. The *2.5km files give the final SeaSoar CTD data gridded at a spacing of 2.5 km in the horizontal (and 2 db in the vertical). These were used for the deeper, offshore survey. Here is the first line of inshore.line1.1.25km: 6.25 155.92008 44.651726 -124.13853 1.0 9 9.5228777 33.127800 25.569221 240.63866 9.5227690 0.24063867E-01 3.7872221 1.1320001 0.78988892 The format of the *km files is given by: col 1 = distance (km) col 2 = julian day + fractional day (noon, Jan 1 = 1.5) col 3 = latitude (decimal degrees) col 4 = longitude (decimal degress) col 5 = pressure (dbar) col 6 = count col 7 = temperature (degrees C) col 8 = salinity (psu) col 9 = density (sigma-t) (kg/cubic meter) col 10 = specific vol anomaly (1.0E-8 cubic meter/kg) col 11 = potential temperature (degrees C) col 12 = dynamic height (dynamic meters) col 13 = PAR (volts) col 14 = FPK010 (volts) (violet filter) col 15 = FPK016 (volts) (green filter) "missing data" was set at 1.0e35 columns 1 - 4 give the average location and time of the values contained in the column at that location. The column gives values for every two dbars of depth, starting at 1db and extending down to a value at 121 db. The column then shifts to the next location, 1.25km further along the line. If we are working with the 2.5km sections, then the column goes down to a value of 329 db, and the next column then shifts 2.5km further along the line. For the E-W lines, column 1 gives the distance from the coastline; for the N-S lines, column 1 gives the distance from southernmost point. column 6 (count) gives the number of samples in that 2db bin

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.

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).

Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-0001035
National Oceanic and Atmospheric Administration (NOAA)	unknown NEP NOAA