

Temperature, salinity, depth, light levels from the SECM stations from R/V John N. Cobb multiple cruises in the Coastal Southeast Alaska from 1997-2006 (NEP project)

Website: <https://www.bco-dmo.org/dataset/3306>

Version: 2010-02-23

Project

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

Program

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

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Dataset Description

Note: This dataset is identical to [SECM_CTD_all](#), however, this version is configured so that the data are mapped as individual points (one per CTD cast) in the MapServer interface. See [SECM_CTD_all](#) to map the data as a time series.

This coastal monitoring study in the northern region of southeastern Alaska, known as the Southeast Coastal Monitoring Project (SECM), was initiated in 1997 and repeated from 1998 to 2006 (Orsi et al. 1997, 1998, 2000, 2001, 2002) to develop our understanding of the relationships between annual time series of biophysical data and stock-specific information.

CTD data was collected in conjunction with juvenile salmon studies in the Gulf of Alaska from 1997-2006 by the Southeast Coastal Monitoring Project.

Data include one CTD cast per station per cruise.

Methods & Sampling

The CTD data were collected with a Sea-Bird1 SBE 19 Seacat profiler to 200 m or within 10 m of the bottom. Surface (3-m) temperature and salinity data were collected at 1-minute intervals with an onboard thermosalinograph (Sea-Bird SBE 21).

Surface (bucket) and 20-m (Niskin bottle) water samples were taken once at each station for later nutrient and chlorophyll analysis.

To quantify ambient light levels, light intensities ($W \cdot m^{-2}$) were recorded at each station with a Li-Cor Model 189 radiometer.

To quantify relative water clarity, the CTD was used in lieu of a Secchi disk; depth measurements (m) were made by observing the visual disappearance of the CTD following deployment.

Also see related SECM datasets:

[station data](#)

[nutrients](#)

[zooplankton](#)

[fish catch data](#)

[fish length and stomach contents](#)

Station Codes:

station	locality
ABM	Auke Bay Monitor
CS A-D	Cross Sound
ED A-D	Cape Edward
FPR	False Point Retreat
IP A-D	Icy Point
IS A-D	Icy Strait
LC A-D	Lower Clarence
LFC	Lower Favorite Channel
MC A-D	Middle Clarence
TK G-I	Taku Inlet transect
UC A-D	Upper Chatham Strait

Data Processing Description

Use constraints: User must read and fully comprehend the metadata prior to use. User must acknowledge the Originator when using the data set as a source. User must share data products developed using the source data set with the Originator. Data should not be used beyond the limits of the source scale.

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Data Files

File
secm_ctd.csv (Comma Separated Values (.csv), 111.26 KB) MD5:7b78186e3286a041f46a7aa86a0652d8 Primary data file for dataset ID 3306

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Parameters

Parameter	Description	Units

depth_ctd	CTD wire out	meters
depth_secchi	depth that CTD disappears	meters
depth_w	water depth	meters
haul_id	haul number	integer
lat	latitude of station, North is positive	in decimal degrees
light	light level at surface	watts/meter square
lon	longitude of station. West is negative.	in decimal degrees
month_local	month of year	1-12
region	Northern vs Southern SE Alaska (NSE and SSE)	text
sal	salinity at 3 m depth	parts per thousand
station	Station code. See Acquisition Description (above).	see table above
temp	temperature at 3 m depth	degrees Celsius
time_local	time of day	local time
year	year of sampling	YYYY
yrday_local	local day and decimal time, as 326.5 for the 326th day of the year, or November 22 at 1200 hours (noon)	day of year (local)
day_local	day of month, local time	1-31
lat_haul	latitude at start of haul; North is positive	decimal degrees
lon_haul	longitude at start of haul; West is negative.	decimal degrees
cruise_id	cruise identification: jc=John Cobb; next two numbers = year; last 2 numbers = cruise # ('x' means cruise # is not known)	text

Instruments

Dataset-specific Instrument Name	CTD Seabird 19
Generic Instrument Name	CTD Sea-Bird SEACAT 19
Dataset-specific Description	The CTD data were collected with a Sea-Bird1 SBE 19 Seacat profiler to 200 m or within 10 m of the bottom.
Generic Instrument Description	The Sea-Bird SBE 19 SEACAT Recorder measures conductivity, temperature, and pressure (depth). The SEACAT is self-powered and self-contained and can be deployed in profiling or moored mode. The SBE 19 SEACAT was replaced in 2001 by the 19plus. more information from Sea-Bird Electronics

Dataset-specific Instrument Name	Niskin Bottle
Generic Instrument Name	Niskin bottle
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.

Dataset-specific Instrument Name	Radiometer
Generic Instrument Name	Radiometer
Dataset-specific Description	To quantify ambient light levels, light intensities ($W \cdot m^{-2}$) were recorded at each station with a Li-Cor Model 189 radiometer.
Generic Instrument Description	Radiometer is a generic term for a range of instruments used to measure electromagnetic radiation (radiance and irradiance) in the atmosphere or the water column. For example, this instrument category includes free-fall spectral radiometer (SPMR/SMSR System, Satlantic, Inc), profiling or deck cosine PAR units (PUV-500 and 510, Biospherical Instruments, Inc). This is a generic term used when specific type, make and model were not specified.

Dataset-specific Instrument Name	Thermosalinograph
Generic Instrument Name	Thermosalinograph
Dataset-specific Description	Surface (3-m) temperature and salinity data were collected at 1-minute intervals with an onboard thermosalinograph (Sea-Bird SBE 21).
Generic Instrument Description	A thermosalinograph (TSG) is used to obtain a continuous record of sea surface temperature and salinity. On many research vessels the TSG is integrated into the ship's underway seawater sampling system and reported with the underway or alongtrack data.

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Deployments

jc0005

Website	https://www.bco-dmo.org/deployment/58068
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0005cr.pdf
Start Date	2000-05-19
End Date	2000-05-25
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0009

Website	https://www.bco-dmo.org/deployment/58069
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0009cr.pdf
Start Date	2000-06-26
End Date	2000-07-02
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0012

Website	https://www.bco-dmo.org/deployment/58070
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0012cr.pdf
Start Date	2000-07-19
End Date	2000-07-25
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0016

Website	https://www.bco-dmo.org/deployment/58071
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0016cr.pdf
Start Date	2000-08-25
End Date	2000-08-31
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0018

Website	https://www.bco-dmo.org/deployment/58072
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0018cr.pdf
Start Date	2000-09-25
End Date	2000-10-01
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0105

Website	https://www.bco-dmo.org/deployment/58073
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0105cr.pdf
Start Date	2001-05-19
End Date	2001-05-25
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0109

Website	https://www.bco-dmo.org/deployment/58074
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0109cr.pdf
Start Date	2001-06-26
End Date	2001-07-02
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0113

Website	https://www.bco-dmo.org/deployment/58075
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0113cr.pdf
Start Date	2001-07-27
End Date	2001-08-02
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0116

Website	https://www.bco-dmo.org/deployment/58076
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0116cr.pdf
Start Date	2001-08-26
End Date	2001-09-01
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0118

Website	https://www.bco-dmo.org/deployment/58077
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0118cr.pdf
Start Date	2001-09-26
End Date	2001-10-02
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0205

Website	https://www.bco-dmo.org/deployment/58078
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0205cr.pdf
Start Date	2002-05-21
End Date	2002-05-24
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0209

Website	https://www.bco-dmo.org/deployment/58079
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0209cr.pdf
Start Date	2002-06-22
End Date	2002-06-27
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0213

Website	https://www.bco-dmo.org/deployment/58080
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0213cr.pdf
Start Date	2002-07-23
End Date	2002-07-31
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0216

Website	https://www.bco-dmo.org/deployment/58081
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0216cr.pdf
Start Date	2002-08-23
End Date	2002-08-30
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0302

Website	https://www.bco-dmo.org/deployment/58082
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0302cr.pdf
Start Date	2003-05-20
End Date	2003-05-25
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0305

Website	https://www.bco-dmo.org/deployment/58083
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0305cr.pdf
Start Date	2003-06-21
End Date	2003-06-30
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0308

Website	https://www.bco-dmo.org/deployment/58084
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0308cr.pdf
Start Date	2003-07-22
End Date	2003-07-29
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0310

Website	https://www.bco-dmo.org/deployment/58085
Platform	R/V John N. Cobb
Report	http://globec.whoi.edu/globec-dir/reports/secm/jc0310cr.pdf
Start Date	2003-08-08
End Date	2003-08-11
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0312

Website	https://www.bco-dmo.org/deployment/58086
Platform	R/V John N. Cobb
Report	http://globec.whoi.edu/globec-dir/reports/secm/jc0312cr.pdf
Start Date	2003-08-21
End Date	2003-08-27
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0406

Website	https://www.bco-dmo.org/deployment/58087
Platform	R/V John N. Cobb
Report	http://globec.whoi.edu/globec-dir/reports/secm/jc0406cr.pdf
Start Date	2004-05-18
End Date	2004-05-23
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0408

Website	https://www.bco-dmo.org/deployment/58088
Platform	R/V John N. Cobb
Report	http://globec.whoi.edu/globec-dir/reports/secm/jc0408cr.pdf
Start Date	2004-06-20
End Date	2004-06-28
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0411

Website	https://www.bco-dmo.org/deployment/58089
Platform	R/V John N. Cobb
Report	http://globec.whoi.edu/globec-dir/reports/secm/jc0411cr.pdf
Start Date	2004-07-23
End Date	2004-07-31
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0414

Website	https://www.bco-dmo.org/deployment/58090
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0414cr.pdf
Start Date	2004-08-21
End Date	2004-08-28
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0506

Website	https://www.bco-dmo.org/deployment/58091
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0506cr.pdf
Start Date	2005-05-22
End Date	2005-05-25
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0508

Website	https://www.bco-dmo.org/deployment/58092
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0508cr.pdf
Start Date	2005-06-20
End Date	2005-07-03
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0510

Website	https://www.bco-dmo.org/deployment/58093
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0510cr.pdf
Start Date	2005-07-20
End Date	2005-08-01
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0512

Website	https://www.bco-dmo.org/deployment/58094
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0512cr.pdf
Start Date	2005-08-23
End Date	2005-08-29
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0608

Website	https://www.bco-dmo.org/deployment/58095
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0608cr.pdf
Start Date	2006-05-22
End Date	2006-05-25
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0611

Website	https://www.bco-dmo.org/deployment/58096
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0611cr.pdf
Start Date	2006-06-21
End Date	2006-07-02
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0613

Website	https://www.bco-dmo.org/deployment/58097
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0613cr.pdf
Start Date	2006-07-21
End Date	2006-07-31
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0616

Website	https://www.bco-dmo.org/deployment/58098
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0616cr.pdf
Start Date	2006-08-19
End Date	2006-08-29
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9706

Website	https://www.bco-dmo.org/deployment/58099
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9706cr.pdf
Start Date	1997-05-20
End Date	1997-05-26
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9709

Website	https://www.bco-dmo.org/deployment/58100
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9709cr.pdf
Start Date	1997-06-22
End Date	1997-06-28
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9711

Website	https://www.bco-dmo.org/deployment/58101
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9711cr.pdf
Start Date	1997-07-18
End Date	1997-07-27
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9714

Website	https://www.bco-dmo.org/deployment/58102
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9714cr.pdf
Start Date	1997-08-22
End Date	1997-08-28
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9717

Website	https://www.bco-dmo.org/deployment/58103
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9717cr.pdf
Start Date	1997-10-02
End Date	1997-10-07
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9805

Website	https://www.bco-dmo.org/deployment/58104
Platform	R/V John N. Cobb
Start Date	1998-05-14
End Date	1998-05-18
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9808

Website	https://www.bco-dmo.org/deployment/58105
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9808cr.pdf
Start Date	1998-06-24
End Date	1998-07-01
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9811

Website	https://www.bco-dmo.org/deployment/58106
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9811cr.pdf
Start Date	1998-07-20
End Date	1998-07-28
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9815

Website	https://www.bco-dmo.org/deployment/58107
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9815cr.pdf
Start Date	1998-08-24
End Date	1998-08-30
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9818

Website	https://www.bco-dmo.org/deployment/58108
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9818cr.pdf
Start Date	1998-10-05
End Date	1998-10-09
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9906

Website	https://www.bco-dmo.org/deployment/58109
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9906cr.pdf
Start Date	1999-05-20
End Date	1999-05-25
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9909

Website	https://www.bco-dmo.org/deployment/58110
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9909cr.pdf
Start Date	1999-06-26
End Date	1999-07-01
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9912

Website	https://www.bco-dmo.org/deployment/58111
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9912cr.pdf
Start Date	1999-07-24
End Date	1999-07-30
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9915

Website	https://www.bco-dmo.org/deployment/58112
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9915cr.pdf
Start Date	1999-08-20
End Date	1999-08-26
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc9918

Website	https://www.bco-dmo.org/deployment/58113
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc9918cr.pdf
Start Date	1999-09-26
End Date	1999-10-02
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

jc0304b

Website	https://www.bco-dmo.org/deployment/58114
Platform	R/V John N. Cobb
Report	http://globec.who.edu/globec-dir/reports/secm/jc0304cr.pdf
Start Date	2003-06-12
End Date	2003-06-15
Description	Southeast Alaska Coastal Monitoring (SECM) cruise

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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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