

# Fish length, weight and stomach contents (prey) data in Southeastern Alaska from R/V John N. Cobb SECM, multiple cruises in the Gulf of Alaska, Coastal Southeast Alaska from 1997-2006 (NEP project)

**Website:** <https://www.bco-dmo.org/dataset/3332>

**Version:** 2010-04-02

## Project

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

## Program

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

Contributors	Affiliation	Role
<a href="#">Fergusson, Emily A.</a>	National Oceanic and Atmospheric Administration - Alaska Fisheries Science Center (NOAA-AFSC-Auke)	Co-Chief Scientist, Data Manager
<a href="#">Orsi, Joseph A</a>	National Oceanic and Atmospheric Administration - Alaska Fisheries Science Center (NOAA-AFSC-Auke)	Co-Chief Scientist, Lead Principal Investigator, Co-Principal Investigator
<a href="#">Sturdevant, Molly V.</a>	National Oceanic and Atmospheric Administration - Alaska Fisheries Science Center (NOAA-AFSC-Auke)	Co-Chief Scientist
<a href="#">Wertheimer, Alex C.</a>	National Oceanic and Atmospheric Administration - Alaska Fisheries Science Center (NOAA-AFSC-Auke)	Lead Principal Investigator, Co-Principal Investigator
<a href="#">Copley, Nancy</a>	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

## Table of Contents

- [Dataset Description](#)
  - [Methods & Sampling](#)
  - [Data Processing Description](#)
- [Data Files](#)
- [Parameters](#)
- [Instruments](#)
- [Deployments](#)
- [Project Information](#)
- [Program Information](#)
- [Funding](#)

## Dataset Description

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.

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

## Methods & Sampling

Also see related SECM datasets:

[station data](#)  
[nutrients](#)  
[ctd](#)  
[zooplankton](#)  
[fish catch data](#)

## Fish sampling

Fish sampling was accomplished with a Nordic 264 rope trawl modified to fish the surface water directly astern of the NOAA ship John N. Cobb. The trawl was 184 m long and had a mouth opening of 24 m by 30 m (depth by width). The John N. Cobb is a 29-m research vessel with a main engine of 325 horsepower and a cruising speed of 10 knots. A pair of 3-m foam-filled Lite trawl doors, each weighing 544 kg (91 kg submerged), was used to spread the trawl open. Earlier gear trials with this vessel and trawl indicated the actual fishing dimensions of the trawl to be 18 m vertical (head rope to foot rope) and 24 m horizontal (wingtip to wingtip), with a spread between the trawl doors ranging from 52 m to 60 m (Orsi et al., unpubl. cruise report 1996). Trawl mesh sizes from the jib lines aft to the cod end were 162.6 cm, 81.3 cm, 40.6 cm, 20.3 cm, 12.7 cm, and 10.1 cm over the 129.6-m meshed length of the rope trawl. A 6.1-m long, 0.8-cm knotless liner was sewn into the cod end. The trawl also contained a small mesh panel of 10.2-cm mesh sewn along the jib lines on the top panel of the trawl between the head rope and the 162.6-cm mesh to reduce loss of small fish. To keep the trawl headrope at the surface, a cluster of three A-4 Polyform buoys, each encased in a knotted mesh bag, was tethered to each wingtip of the headrope, and one A-3 Polyform float was clipped onto the center of the headrope. The trawl was fished with 137 m of 1.6-cm wire main warp attached to each door and three 55-m (two 1.0-cm and one 1.3-cm) wire bridles.

Each trawl haul was fished across a station for 20 min at about 1.5 m/sec (3 knots), covering approximately 1.9 km (1.0 nautical mile). Station coordinates were targeted as the midpoint of the trawl haul; however, current, swell, and wind conditions dictated the direction in which the trawl was set. Trawling effort in the strait habitat was increased to ensure that sufficient samples of marked juvenile salmon were obtained for comparison among previous years. In particular, replicate trawls were conducted in Icy Strait when weather and time allowed, with minimal accompanying oceanographic sampling.

## 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

After each trawl haul, the fish were anesthetized with tricaine methanesulfonate (MS-222), identified, enumerated, measured, labeled, bagged, and frozen. After the catch was sorted, fish and squid were measured to the nearest mm fork length (FL) or mantle length with a Limnotera FMB IV electronic measuring board (Chaput et al. 1992). Usually all fish and squid were measured, but very large catches were subsampled due to processing time constraints. Up to 50 juvenile salmon of each species were bagged individually; the remainder were bagged in bulk. All fish were frozen immediately after measurement. During times of extended processing, fish were chilled with ice packs to minimize tissue decomposition and gastric activity. All chinook and coho salmon were examined for missing adipose fins indicating the possible presence of implanted CWTs; those with adipose fins intact were again screened through a detector in the laboratory. The snouts of these fish were dissected later in the laboratory to recover CWTs, which were then decoded and verified to determine origin.

Frozen individual juvenile salmon were weighed in the laboratory to the nearest gram (g). Mean lengths,

weights, and Fulton condition factors ( $g/FL^3 \times 10^5$ ; Cone 1989) were computed for each species by habitat and sampling interval. To identify stock of origin of juvenile chum, sockeye, coho, and chinook salmon, sagittal otoliths were extracted from the crania and preserved in 95% ethyl alcohol. Laboratory processing of otoliths for thermal marks was contracted to DIPAC. Otoliths were prepared for microscopic examination of potential thermal marks by mounting them on slides and grinding them down to the primordia (Secor et al. 1992). Ambiguous otolith thermal marks were verified by personnel at the Alaska Department of Fish and Game otolith laboratory. Stock composition and growth trajectories of thermally marked fish were then determined for each month and habitat.

Whole body energy content (WBEC) was determined by bomb calorimetry in the laboratory for juvenile coho salmon caught in the strait habitat. After removing the stomach contents, individual juvenile coho were dried at 55 Celsius to a constant weight in an oven. Fish were homogenized in a micro-mill to yield a uniform powder, from which  $0.50 \pm 0.02$  mg pellet subsamples were formed. Pellets were combusted in a Parr micro-bomb calorimeter following standard methods (Parr Instrument Co. 1994), and WBEC values were expressed in energy units of calories/g dry weight.

Potential predators of juvenile salmon from each haul were identified, measured, and weighed onboard the vessel. Their stomachs were then excised, weighed, and classified by percent fullness. Stomach contents were removed, empty stomachs weighed, and total content weight determined by subtraction. General prey composition was determined by estimating contribution of taxa to the nearest 10% of total volume. The wet-weight contribution of each prey taxon to the diets was then calculated by multiplying its percent volume by the total content weight. Fish prey was identified to species, if possible, and lengths were estimated. The incidence and rate of predation on juvenile salmon was computed for each potential predator species. Overall diets were summarized by percent weight of major prey taxa and the frequency of feeding fish.

[ [table of contents](#) | [back to top](#) ]

## Data Files

File
<b>secm_fish_size_preycsv</b> (Comma Separated Values (.csv), 464.69 KB) MD5:92dd98141881fb230a7fe204ef165d64
Primary data file for dataset ID 3332

[ [table of contents](#) | [back to top](#) ]

## Parameters

Parameter	Description	Units
region	NSE = Northern SE Alaska; SSE = Southern SE Alaska.	text
year	year of sampling	YYYY
station	Station code. See table above (in Acquisition Description).	text
lat	latitude at station; North is positive; negative denotes South	decimal degrees
lon	longitude at station; East is positive; negative denotes West	decimal degrees
habitat	coastal or inshore or strait	text

locality	name of place of sampling	text
month_local	month of year	1-12
day_local	local day of month	1-31
time_local	time of day; local time; using 2400 clock format	HHMM
haul_id	haul number	integer
species	genus and species name	text
name_common	common name of fish species	text
fish_id	identification number of fish specimen	integer
length	fork length	millimeters
weight	onboard weight of fresh fish	grams
fullness	percent fullness of fish while onboard ship	percent
weight_stomach_full	weight of excised stomach while full	grams
weight_stomach_empty	weight of excised stomach after emptied	grams
prey_name	name of prey found in stomach	text
pcent_content	contribution of prey taxa in stomach to the nearest 10% of total volume	percent
comments_fish	comments pertaining to fish	text
comments_stomach	comments pertaining to stomach	text
yrday_local	local day and decimal time; as 326.5 for the 326th day of the year; or November 22 at 1200 hours (noon)	jjj.hhh
cruise_id	cruise identification: jc=John Cobb; next two numbers = year; last 2 numbers = cruise # ('x' means cruise # is not known)	text

## Instruments

<b>Dataset-specific Instrument Name</b>	Trawl
<b>Generic Instrument Name</b>	Beam Trawl
<b>Dataset-specific Description</b>	Nordic 264 rope trawl modified to fish the surface water directly astern of the NOAA ship John N. Cobb. The trawl was 184 m long and had a mouth opening of 24 m by 30 m (depth by width). A pair of 3-m foam-filled Lite trawl doors, each weighing 544 kg (91 kg submerged), was used to spread the trawl open. Earlier gear trials with this vessel and trawl indicated the actual fishing dimensions of the trawl to be 18 m vertical (head rope to foot rope) and 24 m horizontal (wingtip to wingtip), with a spread between the trawl doors ranging from 52 m to 60 m (Orsi et al., unpubl. cruise report 1996). Trawl mesh sizes from the jib lines aft to the cod end were 162.6 cm, 81.3 cm, 40.6 cm, 20.3 cm, 12.7 cm, and 10.1 cm over the 129.6-m meshed length of the rope trawl. A 6.1-m long, 0.8-cm knotless liner was sewn into the cod end. The trawl also contained a small mesh panel of 10.2-cm mesh sewn along the jib lines on the top panel of the trawl between the head rope and the 162.6-cm mesh to reduce loss of small fish. To keep the trawl headrope at the surface, a cluster of three A-4 Polyform buoys, each encased in a knotted mesh bag, was tethered to each wingtip of the headrope, and one A-3 Polyform float was clipped onto the center of the headrope. The trawl was fished with 137 m of 1.6-cm wire main warp attached to each door and three 55-m (two 1.0-cm and one 1.3-cm) wire bridles.
<b>Generic Instrument Description</b>	A beam trawl consists of a cone-shaped body ending in a bag or codend, which retains the catch. In these trawls the horizontal opening of the net is provided by a beam, made of wood or metal, which is up to 12 m long. The vertical opening is provided by two hoop-like trawl shoes mostly made from steel. No hydrodynamic forces are needed to keep a beam trawl open. The beam trawl is normally towed on outriggers, one trawl on each side. While fishing for flatfish the beam trawl is often equipped with tickler chains to disturb the fish from the seabed. For operations on very rough fishing grounds they can be equipped with chain matrices. Chain matrices are rigged between the beam and the groundrope and prevent boulders/stones from being caught by the trawl. Shrimp beam trawls are not so heavy and have smaller mesh sizes. A bobbin of groundrope with rubber bobbins keeps the shrimp beam trawl in contact with the bottom and gives flatfish the opportunity to escape. Close bottom contact is necessary for successful operation. To avoid bycatch of most juvenile fishes selectivity devices are assembled (sieve nets, sorting grids, escape holes). While targeting flatfish the beam trawls are towed up to seven knots, therefore the gear is very heavy; the largest gears weighs up to 10 ton. The towing speed for shrimp is between 2.5 and 3 knots. (from: <a href="http://www.fao.org/fishery/geartype/305/en">http://www.fao.org/fishery/geartype/305/en</a> )

<b>Dataset-specific Instrument Name</b>	CTD Seabird 19
<b>Generic Instrument Name</b>	CTD Sea-Bird SEACAT 19
<b>Dataset-specific Description</b>	Sea-Bird1 SBE 19 Seacat profiler to 200 m or within 10 m of the bottom.
<b>Generic Instrument Description</b>	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

<b>Dataset-specific Instrument Name</b>	Radiometer
<b>Generic Instrument Name</b>	Radiometer
<b>Dataset-specific Description</b>	To quantify ambient light levels that could influence zooplankton vertical migration, light intensities ( $\text{W/m}^2$ ) were recorded at each station with a Li-Cor Model 189 radiometer.
<b>Generic Instrument Description</b>	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.

<b>Dataset-specific Instrument Name</b>	Thermosalinograph
<b>Generic Instrument Name</b>	Thermosalinograph
<b>Dataset-specific Description</b>	Surface (2 m) temperature and salinity data were collected at 1-minute intervals with an onboard thermosalinograph (Sea-Bird SBE 21).
<b>Generic Instrument Description</b>	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.

[ [table of contents](#) | [back to top](#) ]

## Deployments

### SECM

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/58037">https://www.bco-dmo.org/deployment/58037</a>
<b>Platform</b>	R/V John N. Cobb
<b>Report</b>	<a href="http://globec.whoi.edu/globec-dir/reports/secm/">http://globec.whoi.edu/globec-dir/reports/secm/</a>
<b>Start Date</b>	1997-05-20
<b>End Date</b>	2006-08-29
<b>Description</b>	<p>Periodic salmon, zooplankton, nutrient sampling over a 10 year period. No cruise numbers are provided. The John N. Cobb is a 29-m research vessel with a main engine of 325 horsepower and a cruising speed of 10 knots.</p> <p><b>Methods &amp; Sampling</b></p> <p>Periodic salmon, zooplankton, nutrient sampling over a 10 year period. No cruise numbers are provided. The John N. Cobb is a 29-m research vessel with a main engine of 325 horsepower and a cruising speed of 10 knots.</p>

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

#### jc0012

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

#### jc0016

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

#### jc0018

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

#### jc0105

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

**jc0109**

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

**jc0113**

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

**jc0116**

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

**jc0118**

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

**jc0209**

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



**jc0213**

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

**jc0216**

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

**jc0305**

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

**jc0308**

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

**jc0310**

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

#### jc0312

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

#### jc0406

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

#### jc0408

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

#### jc0411

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

**jc0414**

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

**jc0508**

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

**jc0510**

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

**jc0512**

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

**jc0608**

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

**jc0611**

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

**jc0613**

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

**jc9706**

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

**jc9709**

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

**jc9711**

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

#### jc9714

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

#### jc9717

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

#### jc9805

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

#### jc9808

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

#### jc9811

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

#### jc9815

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

#### jc9818

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

#### jc9906

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

#### jc9909

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

**jc9912**

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

**jc9915**

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

**jc9918**

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

**jc0304b**

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

[ [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
National Oceanic and Atmospheric Administration (NOAA)	<a href="#">unknown NEP NOAA</a>
National Science Foundation (NSF)	<a href="#">unknown NEP NSF</a>

[ [table of contents](#) | [back to top](#) ]