

# General information relative to Crabeater Seals collected during the ARSV Laurence M. Gould cruises LMG0104, LMG0106, LMG0203, and LMG0205 in the Southern Ocean from 2001-2002 (SOGLOBEC project)

**Website:** <https://www.bco-dmo.org/dataset/2378>

**Data Type:** Cruise Results

**Version:** 1

**Version Date:** 2005-03-31

## Project

- » [U.S. GLOBEC Southern Ocean](#) (SOGLOBEC)
- » [Foraging Ecology of Crabeater Seals \(\*Lobodon Carcinophagus\*\)](#) (Crabeater Seal Foraging)

## Programs

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

Contributors	Affiliation	Role
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## Abstract

General information relative to Crabeater Seals collected during the ARSV Laurence M. Gould cruises LMG0104, LMG0106, LMG0203, and LMG0205 in the Southern Ocean from 2001-2002 (SOGLOBEC project)

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## Coverage

**Spatial Extent:** N:-65.523 E:-66.595 S:-69.2973 W:-75.997

**Temporal Extent:** 2001-05-07 - 2002-09-09

## Dataset Description

### Seal Studies, Southern Ocean GLOBEC, General Seal Metadata

**Reference:** [Laws, R. M., Baird A., Bryden M. M., 2003.](#) Size and growth of the crabeater seal *Lobodon carcinophagus* (Mammalia: Carnivora). Journal of Zoology (London) **259**, 103-108.

**For additional details on sampling and analytical methods see:**

Burns, Jennifer M., Daniel P. Costa, Michael A. Fedak, Mark A. Hindell, Corey J.A. Bradshaw, Nicholas C. Gales,

Birgitte McDonald, Stephan J. Trumble, Daniel E. Crocker, 2004. [Winter habitat use and foraging behavior of crabeater seals along the Western Antarctic Peninsula](#). Deep-Sea Research II vol 51, pp 2279-2303.

### Links to companion seal files:

[Seal Physiology](#)

[Seal Morphometrics](#)

[Seal Predicted Mass](#)

[Seal Tracking Locations From Satellite Tags](#)

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### Methods & Sampling

Seal Studies, Southern Ocean GLOBEC, General Seal Metadata.

### Data Processing Description

#### For additional details on sampling and analytical methods see:

Burns, Jennifer M., Daniel P. Costa, Michael A. Fedak, Mark A. Hindell, Corey J.A. Bradshaw, Nicholas C. Gales, Birgitte McDonald, Stephan J. Trumble, Daniel E. Crocker, 2004. [Winter habitat use and foraging behavior of crabeater seals along the Western Antarctic Peninsula](#). Deep-Sea Research II vol 51, pp 2279-2303.

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### Data Files

File
<b>seals_general.csv</b> (Comma Separated Values (.csv), 8.40 KB) MD5:2cdc8404496821daaf3a15dd2a22266f
Primary data file for dataset ID 2378

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### Parameters

Parameter	Description	Units
cruiseid	Cruise Identifier. (E.g., LMG0103, NPB0104)	
year	year of cruise	
tagid	seal tag identification, flipper tag	
season	season of year as text, i.e. Fall	
sealname	seal name or identification as text	
srdl_tag	satellite relay data logger. instrument attached to seal.	
srdl_body	ID number for the Satellite tag unique to each instrument.	
pttno	ID of satellite tag. Not unique because ARGOS recycles them year to year.	
species	common seal name as text	
month_local	month of year, local time (01-12)	
day_local	day of month, local time (01-31)	
event	event or operation number. unique ID.	
lat	latitude, negative = South	decimal degrees
lon	longitude, negative = West	decimal degrees
time_capture	time of capture, 24 hour clock, local time	HHmm
time_release	time of release, 24 hour clock, local time	HHmm
ageclass	age classification, estimated in field (i.e. adult, etc.)	
sex	classification by sex, (male/female)	
mass	body mass	kilograms

len_std	standard length: straight line length, from tip of nose to tip of tail, measured above the dorsal surface (animal lying on its belly)	cm
len_curve	curved length: measured from nose to tip of tail following the curve of the animal's spine along the dorsal surface	cm
girth_ax	girth at axilla	cm
girth_max	maximum body girth	cm
girth_hip	girth at hips	cm
blubber	blubber sample collected (true/false)	
muscle	muscle sample collected (true/false)	
whisker	whisker sample collected (true/false)	
body_fat	body fat concentration, reported as a decimal fraction, (body_comp * 100 = percent fat)	
mass_calc	calculated body mass	kilograms
mass_calc_err	calculated body mass error	kilograms
comments	comments as text	

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## Deployments

**LMG0104**

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57637">https://www.bco-dmo.org/deployment/57637</a>
<b>Platform</b>	ARSV Laurence M. Gould
<b>Report</b>	<a href="http://www.ccpo.odu.edu/Research/globec/cruises/gould0103_0104.doc">http://www.ccpo.odu.edu/Research/globec/cruises/gould0103_0104.doc</a>
<b>Start Date</b>	2001-04-20
<b>End Date</b>	2001-06-05
<b>Description</b>	<p><b>Methods &amp; Sampling</b> Seal Studies, Southern Ocean GLOBEC, General Seal Metadata.</p> <p><b>Processing Description</b> For additional details on sampling and analytical methods see:Burns, Jennifer M., Daniel P. Costa, Michael A. Fedak, Mark A. Hindell, Corey J.A. Bradshaw, Nicholas C. Gales, Birgitte McDonald, Stephan J. Trumble, Daniel E. Crocker, 2004. Winter"&gt;<a href="http://dx.doi.org/10.1016/j.dsr2.2004.07.021">http://dx.doi.org/10.1016/j.dsr2.2004.07.021</a>'&gt;Winter habitat use and foraging behavior of crabeater seals along the Western Antarctic Peninsula. Deep-Sea Research II vol 51, pp 2279-2303.</p>

#### LMG0106

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57639">https://www.bco-dmo.org/deployment/57639</a>
<b>Platform</b>	ARSV Laurence M. Gould
<b>Report</b>	<a href="http://www.ccpo.odu.edu/Research/globec/cruises01/lmg0106_menu.html">http://www.ccpo.odu.edu/Research/globec/cruises01/lmg0106_menu.html</a>
<b>Start Date</b>	2001-07-21
<b>End Date</b>	2001-09-01
<b>Description</b>	<p><b>Methods &amp; Sampling</b> Seal Studies, Southern Ocean GLOBEC, General Seal Metadata.</p> <p><b>Processing Description</b> For additional details on sampling and analytical methods see:Burns, Jennifer M., Daniel P. Costa, Michael A. Fedak, Mark A. Hindell, Corey J.A. Bradshaw, Nicholas C. Gales, Birgitte McDonald, Stephan J. Trumble, Daniel E. Crocker, 2004. Winter"&gt;<a href="http://dx.doi.org/10.1016/j.dsr2.2004.07.021">http://dx.doi.org/10.1016/j.dsr2.2004.07.021</a>'&gt;Winter habitat use and foraging behavior of crabeater seals along the Western Antarctic Peninsula. Deep-Sea Research II vol 51, pp 2279-2303.</p>

#### LMG0203

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57642">https://www.bco-dmo.org/deployment/57642</a>
<b>Platform</b>	ARSV Laurence M. Gould
<b>Report</b>	<a href="http://www.ccpo.odu.edu/Research/globec/main_cruises02/lmg0203/menu.html">http://www.ccpo.odu.edu/Research/globec/main_cruises02/lmg0203/menu.html</a>
<b>Start Date</b>	2002-04-07
<b>End Date</b>	2002-05-20
<b>Description</b>	<p><b>Methods &amp; Sampling</b> Seal Studies, Southern Ocean GLOBEC, General Seal Metadata.</p> <p><b>Processing Description</b> For additional details on sampling and analytical methods see:Burns, Jennifer M., Daniel P. Costa, Michael A. Fedak, Mark A. Hindell, Corey J.A. Bradshaw, Nicholas C. Gales, Birgitte McDonald, Stephan J. Trumble, Daniel E. Crocker, 2004. Winter"&gt;<a href="http://dx.doi.org/10.1016/j.dsr2.2004.07.021">http://dx.doi.org/10.1016/j.dsr2.2004.07.021</a>'&gt;Winter habitat use and foraging behavior of crabeater seals along the Western Antarctic Peninsula. Deep-Sea Research II vol 51, pp 2279-2303.</p>

**LMG0205**

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57644">https://www.bco-dmo.org/deployment/57644</a>
<b>Platform</b>	ARSV Laurence M. Gould
<b>Report</b>	<a href="http://www.ccpo.odu.edu/Research/globec/main_cruises02/lmg0205/report_lmg0205.pdf">http://www.ccpo.odu.edu/Research/globec/main_cruises02/lmg0205/report_lmg0205.pdf</a>
<b>Start Date</b>	2002-07-29
<b>End Date</b>	2002-09-18
<b>Description</b>	<p><b>Methods &amp; Sampling</b> Seal Studies, Southern Ocean GLOBEC, General Seal Metadata.</p> <p><b>Processing Description</b> For additional details on sampling and analytical methods see: Burns, Jennifer M., Daniel P. Costa, Michael A. Fedak, Mark A. Hindell, Corey J.A. Bradshaw, Nicholas C. Gales, Birgitte McDonald, Stephan J. Trumble, Daniel E. Crocker, 2004. Winter"&gt;<a href="http://dx.doi.org/10.1016/j.dsr2.2004.07.021">http://dx.doi.org/10.1016/j.dsr2.2004.07.021</a>'&gt;Winter habitat use and foraging behavior of crabeater seals along the Western Antarctic Peninsula. Deep-Sea Research II vol 51, pp 2279-2303.</p>

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## Project Information

### U.S. GLOBEC Southern Ocean (SOGLOBEC)

**Website:** [http://www.ccpo.odu.edu/Research/globec\\_menu.html](http://www.ccpo.odu.edu/Research/globec_menu.html)

**Coverage:** Southern Ocean

The fundamental objectives of United States Global Ocean Ecosystems Dynamics (U.S. GLOBEC) Program are dependent upon the cooperation of scientists from several disciplines. Physicists, biologists, and chemists must make use of data collected during U.S. GLOBEC field programs to further our understanding of the interplay of physics, biology, and chemistry. Our objectives require quantitative analysis of interdisciplinary data sets and, therefore, data must be exchanged between researchers. To extract the full scientific value, data must be made available to the scientific community on a timely basis.

### Foraging Ecology of Crabeater Seals (*Lobodon Carcinophagus*) (Crabeater Seal Foraging)

**Coverage:** Southern Ocean

The U.S. Global Ocean Ecosystems Dynamics (U.S. GLOBEC) program has the goal of understanding and ultimately predicting how populations of marine animal species respond to natural and anthropogenic changes in climate. Research in the Southern Ocean (SO) indicates strong coupling between climatic processes and ecosystem dynamics via the annual formation and destruction of sea ice. The Southern Ocean GLOBEC Program (SO GLOBEC) will investigate the dynamic relationship between physical processes and ecosystem responses through identification of critical parameters that affect the distribution, abundance and population dynamics of target species. The overall goals of the SO GLOBEC program are to elucidate shelf circulation processes and their effect on sea ice formation and krill distribution, and to examine the factors which govern krill survivorship and availability to higher trophic levels, including penguins, seals and whales. The focus of the U.S. contribution to the international SO GLOBEC program will be on winter processes. This component will focus on the distribution and foraging behavior of adult female crabeater seals, using a combination of satellite-

linked tracking, specialized diver recorders, and stable isotopic tracers. This research will be coordinated with components focused on prey (krill) distribution and the physical environment. The results will be analyzed using an optimality model. The result of the integrated SO GLOBEC program will be to improve the predictability of living marine resources, especially with respect to local and global climatic shifts.

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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).

### U.S. GLOBAL ocean ECosystems dynamics (U.S. GLOBEC)

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## Funding

Funding Source	Award
<a href="#">NSF Antarctic Sciences (NSF ANT)</a>	<a href="#">ANT-0003956</a>
<a href="#">NSF Antarctic Sciences (NSF ANT)</a>	<a href="#">ANT-9981683</a>

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