Marine mammal (whale and penguin) sightings from Chile to the Western Antarctic Peninsula from multiple cruises in the Southern Ocean from 2001-2002 (SOGLOBEC project)

Website: https://www.bco-dmo.org/dataset/3421
Version: 1
Version Date: 2009-08-17

Project
» U.S. GLOBEC Southern Ocean (SOGLOBEC)

Program
» U.S. GLOBal ocean ECosystems dynamics (U.S. GLOBEC)

Contributors	Affiliation	Role
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Dataset Description

Visual surveys for cetaceans and penguins were conducted during daylight hours on all days when weather conditions allowed on the Antarctic Peninsula, in the austral autumns and winters of 2000-2002.

Objectives: 1) to characterize foraging behavior and movements of individual baleen whales in relation to prey characteristics and physical environment, 2) to relate distribution, abundance and biomass of baleen whales species to same for krill in a large area in a single season, and 3) to monitor interannual variability in whale distribution and abundance in relation to physical environment and prey characteristics.

Methods & Sampling

Standard IWC methodology for multi-disciplinary studies is being used throughout all SO GLOBEC collaborative cruises. This involves experienced cetacean researchers conducting line transect sighting surveys throughout daylight hours in acceptable weather conditions. Data are recorded on a laptop-based tracking program (Wincruz), and photo and video records are also obtained for species identification, group size verification, feeding (and other behavior), ice habitat and individual identification (taken from D.Thiele).

Observations were made from the ice tower by a single observer. When conditions permitted, the observer was outside along the cat-walk of the ice tower, otherwise observations were made from the inside. Effort was focused 45° to port and starboard of the bow ahead of the vessel, while also scanning to cover the full 180°ahead of the vessel. In sea ice, the method was adjusted to include searching behind in the vessel's wake as well, in order that cetaceans and seals hidden by ice would be detected more readily. The observer used a combination of eye and binocular searching (7x50 Fujinon). Effort would commence when the following conditions allowed: appropriate daylight, winds less than 20 kts or Beaufort sea state less than 5-6, visibility

greater than 1 nm (measured by the distance a minke whale blow could be seen with the naked eye as judged by the observer) and the ship actually steaming. An incidental watch was kept in borderline conditions or in variable visibility, such as fog and snow squalls. Subjective weather data was recorded to keep track of the changing conditions, e.g., Beaufort sea state, cloud cover, glare, ice, sight ability, etc.

Sightings were recorded on a laptop-based Wincruz Antarctic program, which also logged GPS position, course, ship speed, and a suite of other environmental and sightings conditions automatically. Visual observations were made both during the station-transect portion of the trip, as well as during transit. When possible, photographic and/or video documentation was made of each sighting for later use in individual identification, species confirmation, and habitat description.

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Data Files

File
whale_sightings.csv (Comma Separated Values (.csv), 86.73 KB) MD5:2045bd8d95b4a8d5e24d11f920d4dbeb Primary data file for dataset ID 3421

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Parameters

Parameter	Description	Units
taxon	either cetacean or penguin	text
cruise_id	cruise identifier e.g. AL9505 is RV/Albatross-9505	text
year	year of sampling	YYYY
sight_num	sequential sighting number	integer
date_gmt	date in gmt	m/d/yyyy
month_gmt	month in gmt	1 to 12
day_gmt	day of month in gmt	1 to 31
time_gmt	time of day in gmt	hh:mm:ss
yrday_gmt	day and decimal time in gmt: as 326.5 for the 326th day of the year or November 22 at 1200 hours (noon)	number
lat	latitude: North is positive and negative denotes South	decimal degrees

lon	longtude: East is positive and negative denotes West	decimal degrees
observer	intials of person making observation	text
species	species of marine mammal	text
bearing	bearing of observation? or ship's bearing? North is 0; South is 180	degrees
distance_nm	distance from ship to animal?	nautical miles
count	number of animals seen	integer
reticle	reticle of binoculars; for estimating distance and size (1-3)	integer
method_sighting	sighting method code (1-3) ??	integer
on_ice_YN	whether the animal was seen on the ice (Y) or not (N)	Y/N
cue	? (1-5)	integer
group_max	maximum group size	integer
group_min	minimum group size	integer
ice_cover	ice coverage	tenths

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Instruments

Dataset-specific Instrument Name	Binoculars, Handheld
Generic Instrument Name	Binoculars Handheld
Dataset-specific Description	7x50 Fujinon
Generic Instrument Description	Handheld binoculars, generally used for bird or mammal observations.

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Deployments

LMG0201A

Website	https://www.bco-dmo.org/deployment/57640
Platform	ARSV Laurence M. Gould
Report	http://www.ccpo.odu.edu/Research/globec/main_cruises02/lmg0201a/LMG02-01A_Report.pdf
Start Date	2002-02-06
End Date	2002-03-03
Description	**Methods & Sampling** Visual marine mammal survey

LMG0103

Website	https://www.bco-dmo.org/deployment/57635
Platform	ARSV Laurence M. Gould
Report	http://www.ccpo.odu.edu/Research/globec/cruises01/mooringcruise/lmg0103_menu.html
Start Date	2001-03-18
End Date	2001-04-13
Description	**Methods & Sampling** visual marine mammal survey

NBP0103

Website	https://www.bco-dmo.org/deployment/57636
Platform	RVIB Nathaniel B. Palmer
Report	http://globec.whoi.edu/so-dir/reports/nbp0103/nbp0103.html
Start Date	2001-04-24
End Date	2001-06-05
Description	**Methods & Sampling** visual marine mammal survey

NBP0104

Website	https://www.bco-dmo.org/deployment/57638
Platform	RVIB Nathaniel B. Palmer
Report	http://www.ccpo.odu.edu/Research/globec/cruises01/nbp0104_menu.html
Start Date	2001-07-22
End Date	2001-08-31
Description	**Methods & Sampling** visual marine mammal survey

NBP0202

Website	https://www.bco-dmo.org/deployment/57641
Platform	RVIB Nathaniel B. Palmer
Report	http://globec.whoi.edu/so-dir/reports/nbp0202/nbp0202b.html
Start Date	2002-04-09
End Date	2002-05-21
Description	**Methods & Sampling** visual marine mammal survey

NBP0204

Website	https://www.bco-dmo.org/deployment/57643
Platform	RVIB Nathaniel B. Palmer
Report	http://globec.whoi.edu/so-dir/reports/nbp0204/nbp0204b.html
Start Date	2002-07-31
End Date	2002-09-18
Description	Also see NBP0204 Cruise Data Report **Methods & Sampling** visual marine mammal surve

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Project Information

U.S. GLOBEC Southern Ocean (SOGLOBEC)

Website: 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.

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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
NSF Antarctic Sciences (NSF ANT)	unknown SOGLOBEC NSF ANT

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