

# Sonobuoy data used to collect whale acoustics from ARSV Laurence M. Gould and RVIB Nathaniel B. Palmer cruises LMG0103, NBP0103, and NBP0104 in the Southern Ocean in 2001 (SOGLOBEC project)

**Website:** <https://www.bco-dmo.org/dataset/2384>

**Data Type:** Cruise Results

**Version:** 1

**Version Date:** 2001-12-03

## Project

» [U.S. GLOBEC Southern Ocean](#) (SOGLOBEC)

## Program

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

Contributors	Affiliation	Role
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## Abstract

Sonobuoy data used to collect whale acoustics from ARSV Laurence M. Gould and RVIB Nathaniel B. Palmer cruises LMG0103, NBP0103, and NBP0104 in the Southern Ocean in 2001 (SOGLOBEC project)

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## Coverage

**Spatial Extent:** N:-59.085 E:-61.652 S:-70.303 W:-77.127

**Temporal Extent:** 2001-03-21 - 2001-08-28

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## Dataset Description

### Working Procedure:

A sonobuoy is deployed and monitored until it is out of range. The length of time the sonobuoy can be heard depends on the speed of the ship, the sonobuoy's direction relative to the ship and the prevailing sea, ice and weather conditions. When a whale is heard, an attempt is made to identify the species and note it. If a seal is heard, it is just noted as a seal. The sonobuoy was set to scuttle after 8 hours.

### Questions regarding these data should be directed to:

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## Methods & Sampling

A sonobuoy is deployed and monitored until it is out of range. The length of time the sonobuoy can be heard depends on the speed of the ship, the sonobuoy's direction relative to the ship and the prevailing sea, ice and weather conditions. When a whale is heard, an attempt is made to identify the species and note it. If a seal is heard, it is just noted as a seal. The sonobuoy was set to scuttle after 8 hours.

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## Data Files

File
<b>sonobuoy_whale.csv</b> (Comma Separated Values (.csv), 13.62 KB) MD5:00224728a009b3900f40a9872e48843f Primary data file for dataset ID 2384

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## Parameters

Parameter	Description	Units
cruiseid	cruise identification	
year	year of cruise in YYYY format	unitless
deployno	sonobuoy deployment number	
day_gmt	day of month. GMT time	DD
month_gmt	month of year (01-12), GMT time	MM
time_gmt	time of day 24 hour clock, GMT	HHmm
lat	latitude, negative = South	decimal degrees
lon	longitude, negative = West	decimal degrees
inst	instrument, sonobuoy type:53B denotes DIFAR (directional fixing and ranging) sonobuoy, having a frequency range of 10 Hz to 2.5 kHz. 57B denotes an omnidirectional sonobuoy with a frequency range up to 40 kHz.	
Mn	Megaptera novaeangliae - humpback whale calls identified by the following codes:x = call detected x? = possible call - = no call	
Bb	Balaenoptera bonaerensis - Antarctic minke whale, see call codes above	
Bp	Balaenoptera physalus - fin whale, see call codes above	
Bm	Balaenoptera musculus - blue whale, see call codes above	
Odt	odontocete whale, see call codes above	
Seal	seal call, see call codes above	
comments	reason for sonobuoy deployment at that location, as a comment	
range	transmission range of sonobuoy	

## Instruments

<b>Dataset-specific Instrument Name</b>	Sonobuoy
<b>Generic Instrument Name</b>	Sonobuoy
<b>Dataset-specific Description</b>	53B denotes DIFAR (directional fixing and ranging) sonobuoy, having a frequency range of 10 Hz to 2.5 kHz. 57B denotes an omnidirectional sonobuoy with a frequency range up to 40 kHz.
<b>Generic Instrument Description</b>	A Sonobuoy is a relatively small (typically 4 inches, or 124 mm, in diameter and 36 inches, or 910 mm, long) expendable sonar system that is dropped/ejected from aircraft or ships conducting anti-submarine warfare or underwater acoustic research.

## Deployments

### LMG0103

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57635">https://www.bco-dmo.org/deployment/57635</a>
<b>Platform</b>	ARSV Laurence M. Gould
<b>Report</b>	<a href="http://www.ccpo.odu.edu/Research/globec/cruises01/mooringcruise/lmg0103_menu.html">http://www.ccpo.odu.edu/Research/globec/cruises01/mooringcruise/lmg0103_menu.html</a>
<b>Start Date</b>	2001-03-18
<b>End Date</b>	2001-04-13
<b>Description</b>	<b>Methods &amp; Sampling</b> A sonobuoy is deployed and monitored until it is out of range. The length of time the sonobuoy can be heard depends on the speed of the ship, the sonobuoy's direction relative to the ship and the prevailing sea, ice and weather conditions. When a whale is heard, an attempt is made to identify the species and note it. If a seal is heard, it is just noted as a seal. The sonobuoy was set to scuttle after 8 hours.

### NBP0103

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57636">https://www.bco-dmo.org/deployment/57636</a>
<b>Platform</b>	RVIB Nathaniel B. Palmer
<b>Report</b>	<a href="http://globec.whoi.edu/so-dir/reports/nbp0103/nbp0103.html">http://globec.whoi.edu/so-dir/reports/nbp0103/nbp0103.html</a>
<b>Start Date</b>	2001-04-24
<b>End Date</b>	2001-06-05
<b>Description</b>	<b>Methods &amp; Sampling</b> A sonobuoy is deployed and monitored until it is out of range. The length of time the sonobuoy can be heard depends on the speed of the ship, the sonobuoy's direction relative to the ship and the prevailing sea, ice and weather conditions. When a whale is heard, an attempt is made to identify the species and note it. If a seal is heard, it is just noted as a seal. The sonobuoy was set to scuttle after 8 hours.

**NBP0104**

<b>Website</b>	<a href="https://www.bco-dmo.org/deployment/57638">https://www.bco-dmo.org/deployment/57638</a>
<b>Platform</b>	RVIB Nathaniel B. Palmer
<b>Report</b>	<a href="http://www.ccpo.odu.edu/Research/globec/cruises01/nbp0104_menu.html">http://www.ccpo.odu.edu/Research/globec/cruises01/nbp0104_menu.html</a>
<b>Start Date</b>	2001-07-22
<b>End Date</b>	2001-08-31
<b>Description</b>	<b>Methods &amp; Sampling</b> A sonobuoy is deployed and monitored until it is out of range. The length of time the sonobuoy can be heard depends on the speed of the ship, the sonobuoy's direction relative to the ship and the prevailing sea, ice and weather conditions. When a whale is heard, an attempt is made to identify the species and note it. If a seal is heard, it is just noted as a seal. The sonobuoy was set to scuttle after 8 hours.

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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.

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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
<a href="#">NSF Antarctic Sciences (NSF ANT)</a>	<a href="#">ANT-9910007</a>

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