Seabird Survey Observations from RVIB Nathaniel B. Palmer during cruises NBP0103, NBP0104, NBP0202, and NBP0204 in the Southern Ocean from 2001-2002 (SOGLOBEC project)

Website: https://www.bco-dmo.org/dataset/2353
Data Type: Cruise Results
Version: 1
Version Date: 2003-01-27

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

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

Contributors	Affiliation	Role
Chapman, Erik	Old Dominion University (ODU)	Principal Investigator
Allison, Dicky	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Abstract
Seabird Survey Observations from RVIB Nathaniel B. Palmer during cruises NBP0103, NBP0104, NBP0202, and NBP0204 in the Southern Ocean from 2001-2002 (SOGLOBEC project)

Table of Contents

- Program Information
- Funding

Coverage

Spatial Extent: **N**:-65.6515 **E**:-67.6244 **S**:-69.4975 **W**:-77.4454
Temporal Extent: 2001-04-29 - 2002-09-18

Dataset Description

Seabird Survey Observations from RVIB Nathaniel B. Palmer during cruises NBP0103, NBP0104, NBP0202, and NBP0204 in the Southern Ocean from 2001-2002.

PI Notes:
Time and Yearday can be used in conjunction with alongtrack data [https://www.bco-dmo.org/dataset/2345] to find latitude, longitude and ship's heading information.

Species Codes

Common Name	Code	Scientific Name
Adelie Penguin	adpe	Pygoscelis adeliae
Antarctic Petrel	anpe	Thalassoica antarctica
Broadbilled (Antarctic) Prion	anpe	Pachyptila vittata (des.)
Antarctic Tern	ante	Sterna vittata
Black-browed Albatross	bbal	Diomedea melanophris
Black-bellied Storm-petrel	bbsp	Fregetta tropica
Imperial Shag (Blue-eyed Shag)	besh	Phalacrocorax atriceps
Blue Petrel	blpe	Halobaena caerulea
Antarctic (Brown) Skua	brsk	Catharacta (skua) lonnbergi
Cape Petrel ('Pintado Petrel')	cape	Daption capense
Chinstrap Penguin	chpe	Pygoscelis antarctica
Crabeater Seal	crse	Lobodon carcinophagus
Elephant Seal	else	Mirounga leonina
Emperor Penguin	empe	Aptenodytes forsteri
Antarctic Fur Seal	fuse	Arctocephalus gazella
Grey-headed Albatross	ghal	Diomedea chrysostoma

Humpback Whale	huwh	Megaptera novaeangliae
Dominican Gull (Kelp Gull)	kegu	Larus dominicanus
Leopard Seal	lese	Hydrurga leptonyx
Minke Whale	miwh	Balaenoptera acutorostrata
Ross Seal	rose	Ommatophoca rossi
Southern Giant Petrel	sgpe	Macronectes giganteus
Snow Petrel	snpe	Pagodroma nivea
Southern Fulmar	sofu	Fulmarus glacialoides
Sooty Shearwater	sosh	Puffinus griseus
South Polar Skua	spsk	Catharacta maccormicki
Unknown Albatross	unal	nd
Unidentified Petrel	unpe	nd
Unidentified Prion	unpr	nd
Unidentified Seal	unse	nd
unidentified large Skua	unsk	nd
Unidentified storm-petrel	unsp	nd
Unidentified Whale	unwh	nd
Weddell Seal	wese	Leptonychotes weddellii
Wilsons Storm-petrel	wisp	Oceanites oceanicus

Behavior Codes

Code	Description	Explanation
1	Feeding	Birds or seals observed handling foods or birds attempting to catch food
2	Milling	Birds observed foraging or circling
3	In transit	Birds or seals moving in a direct line in a definite direction
4	Resting on Ice	Applies to both birds and seals
5	Resting on Water	Applies to both birds and seals
6	Following Ship	Birds only
7	dipping, possible feeding	
8	Attracted to ship	

Transect Codes

Code	Description
3	300 m transect on the port side
6	600 m transect on the port side
0	>600 m on port side
1	Starboard side (No distance limit)

Last updated November 23, 2005; gfh

Acquisition Description

Seabird abundance and distribution within the SO GLOBEC study area was investigated using daytime and nighttime (using night vision viewers) survey work. We also recorded seal observations made within the transect area. Nighttime surveys were designed to complement daytime surveys.

Seabird Daytime Surveys

Strip transects were conducted simultaneously at 300 m and 600 m widths for birds. Surveys were conducted continuously while the ship was underway within the study area and when

visibility was >300 m. For strip transects, two observers continuously scanned a 90ï¿½ area extending the transect distance (300 m and 600 m) to the side and forward along the transect line. Binoculars of 10X and 7X magnification were used to confirm species identifications. The 7X pair of binoculars also included a laser range finder. Ship followers and bird observed to be attracted to the ship were noted at first occurrence. These observations will be down-weighted in the analyses because these individuals may have been attracted to the ship from habitats at a distance from the ship. For each sighting, transect (300 m or 600 m), species, number of birds, behavior, flight direction, and any association with visible physical features, such as ice, were recorded. Distances were measured either by a range finder device as suggested by Heinemann (1981) or by the laser distance finder (when in the ice). Marine mammal sightings within the transect were also recorded.

Surveys were conducted from an outside observation post located on the port bridge wing of the RVIB N.B. Palmer. When it was not feasible to conduct surveys from this observation post, we surveyed from the inside port bridge wing.

Seabird Nighttime Surveys
ITT 200/210 Binocular Night Vision Viewers were used during one half-hour survey periods while on the survey grid. Surveys were a minimum of an hour apart. Observations were made from the bridge wing during NBP0104 and outside, from a dark area on the 01 deck, during NBP0103. Observers scanned back and forth looking for birds. Species and behavior of the bird was recorded for each observation. Observations were not conducted when visibility with the night vision viewer was less than 100 m from the ship.

[table of contents | back to top]

Related Publications

Heinemann, D. (1981). A range finder for pelagic bird censusing. J. Wildl. Manage. 45(2), 489-493

[table of contents | back to top]

Parameters

Parameter	Description	Units
cruiseid	cruise identification	
year	year, i.e. 2001	
yrday_gmt	year day, GMT, i.e, 119	whole day
time_gmt	time of day, GMT, 24 hour clock.	HHmm.m
time_of_day	reference to day or night observations; D=day, N=night	
species	species name, as a code, see species code table.	
number	number of organisms counted per species per observation	n/observation
flight_dir	direction bird(s) are flying toward, in degrees relative to ship	degrees
behav_code	behavior of organism(s) at time of sighting, as a code, see behavior code table.	
transect_code	specifies observational methods during transect, as a code, see transect code table.	
comments	general comments to include features associated with sighting.	
date_gmt	observation date formatted as mondd-yyyy; UTC	unitless
lat	latitude; north is positive	decimal degrees
lon	longitude; east is positivie	decimal degrees
association	environmental features associated with sighting	unitless

[table of contents | back to top]

Deployments

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	**Acquisition Description** Seabird abundance and distribution within the SO GLOBEC study area was investigated using daytime and nighttime (using night vision viewers) survey work. We also recorded seal observations made within the transect area. Nighttime surveys were designed to complement daytime surveys. Seabird Daytime Surveys Strip transects were conducted simultaneously at 300 m and 600 m widths for birds. Surveys were conducted continuously while the ship was underway within the study area and when visibility was >300 m. For strip transects, two observers continuously scanned a 90° area extending the transect distance (300 m and 600 m) to the side and forward along the transect line. Binoculars of 10X and 7X magnification were used to confirm species identifications. The 7X pair of binoculars also included a laser range finder. Ship followers and bird observed to be attracted to the ship were noted at first occurrence. These observations will be down-weighted in the analyses because these individuals may have been attracted to the ship from habitats at a distance from the ship. For each sighting, transect (300 m or 600 m), species, number of birds, behavior, flight direction, and any association with visible physical features, such as ice, were recorded. Distances were measured either by a range finder device as suggested by Heinemann (1981) or by the laser distance finder (when in the ice). Marine mammal sightings within the transect were also recorded. Surveys were conducted from an outside observation post located on the port bridge wing of the RVIB N.B. Palmer. When it was not feasible to conduct surveys from this observation post, we surveyed from the inside port bridge wing. Seabird Nighttime Surveys ITT 200/210 Binocular Night Vision Viewers were used during one half-hour survey periods while on the survey grid. Surveys were a minimum of an hour apart. Observations were made from the bridge wing during NBP0104 and outside, from a dark area on the 01 deck, during NBP0103. Observers scanned back and forth looking for birds. Species and behavior of the bird was recorded for each observation. Observations were not conducted when visibility with the night vision viewer was less than 100 m from the ship.

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	**Acquisition Description** Seabird abundance and distribution within the SO GLOBEC study area was investigated using daytime and nighttime (using night vision viewers) survey work. We also recorded seal observations made within the transect area. Nighttime surveys were designed to complement daytime surveys. Seabird Daytime Surveys Strip transects were conducted simultaneously at 300 m and 600 m widths for birds. Surveys were conducted continuously while the ship was underway within the study area and when visibility was >300 m. For strip transects, two observers continuously scanned a 90° area extending the transect distance (300 m and 600 m) to the side and forward along the transect line. Binoculars of 10X and 7X magnification were used to confirm species identifications. The 7X pair of binoculars also included a laser range finder. Ship followers and bird observed to be attracted to the ship were noted at first occurrence. These observations will be down-weighted in the analyses because these individuals may have been attracted to the ship from habitats at a distance from the ship. For each sighting, transect (300 m or 600 m), species, number of birds, behavior, flight direction, and any association with visible physical features, such as ice, were recorded. Distances were measured either by a range finder device as suggested by Heinemann (1981) or by the laser distance finder (when in the ice). Marine mammal sightings within the transect were also recorded. Surveys were conducted from an outside observation post located on the port bridge wing of the RVIB N.B. Palmer. When it was not feasible to conduct surveys from this observation post, we surveyed from the inside port bridge wing. Seabird Nighttime Surveys ITT 200/210 Binocular Night Vision Viewers were used during one half-hour survey periods while on the survey grid. Surveys were a minimum of an hour apart. Observations were made from the bridge wing during NBP0104 and outside, from a dark area on the 01 deck, during NBP0103. Observers scanned back and forth looking for birds. Species and behavior of the bird was recorded for each observation. Observations were not conducted when visibility with the night vision viewer was less than 100 m from the ship.

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	**Acquisition Description** Seabird abundance and distribution within the SO GLOBEC study area was investigated using daytime and nighttime (using night vision viewers) survey work. We also recorded seal observations made within the transect area. Nighttime surveys were designed to complement daytime surveys. Seabird Daytime Surveys Strip transects were conducted simultaneously at 300 m and 600 m widths for birds. Surveys were conducted continuously while the ship was underway within the study area and when visibility was >300 m. For strip transects, two observers continuously scanned a 90° area extending the transect distance (300 m and 600 m) to the side and forward along the transect line. Binoculars of 10X and 7X magnification were used to confirm species identifications. The 7X pair of binoculars also included a laser range finder. Ship followers and bird observed to be attracted to the ship were noted at first occurrence. These observations will be down-weighted in the analyses because these individuals may have been attracted to the ship from habitats at a distance from the ship. For each sighting, transect (300 m or 600 m), species, number of birds, behavior, flight direction, and any association with visible physical features, such as ice, were recorded. Distances were measured either by a range finder device as suggested by Heinemann (1981) or by the laser distance finder (when in the ice). Marine mammal sightings within the transect were also recorded. Surveys were conducted from an outside observation post located on the port bridge wing of the RVIB N.B. Palmer. When it was not feasible to conduct surveys from this observation post, we surveyed from the inside port bridge wing. Seabird Nighttime Surveys ITT 200/210 Binocular Night Vision Viewers were used during one half-hour survey periods while on the survey grid. Surveys were a minimum of an hour apart. Observations were made from the bridge wing during NBP0104 and outside, from a dark area on the 01 deck, during NBP0103. Observers scanned back and forth looking for birds. Species and behavior of the bird was recorded for each observation. Observations were not conducted when visibility with the night vision viewer was less than 100 m from the ship.

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	**Acquisition Description** Seabird abundance and distribution within the SO GLOBEC study area was investigated using daytime and nighttime (using night vision viewers) survey work. We also recorded seal observations made within the transect area. Nighttime surveys were designed to complement daytime surveys. Seabird Daytime Surveys Strip transects were conducted simultaneously at 300 m and 600 m widths for birds. Surveys were conducted continuously while the ship was underway within the study area and when visibility was >300 m. For strip transects, two observers continuously scanned a 90° area extending the transect distance (300 m and 600 m) to the side and forward along the transect line. Binoculars of 10X and 7X magnification were used to confirm species identifications. The 7X pair of binoculars also included a laser range finder. Ship followers and bird observed to be attracted to the ship were noted at first occurrence. These observations will be down-weighted in the analyses because these individuals may have been attracted to the ship from habitats at a distance from the ship. For each sighting, transect (300 m or 600 m), species, number of birds, behavior, flight direction, and any association with visible physical features, such as ice, were recorded. Distances were measured either by a range finder device as suggested by Heinemann (1981) or by the laser distance finder (when in the ice). Marine mammal sightings within the transect were also recorded. Surveys were conducted from an outside observation post located on the port bridge wing of the RVIB N.B. Palmer. When it was not feasible to conduct surveys from this observation post, we surveyed from the inside port bridge wing. Seabird Nighttime Surveys ITT 200/210 Binocular Night Vision Viewers were used during one half-hour survey periods while on the survey grid. Surveys were a minimum of an hour apart. Observations were made from the bridge wing during NBP0104 and outside, from a dark area on the 01 deck, during NBP0103. Observers scanned back and forth looking for birds. Species and behavior of the bird was recorded for each observation. Observations were not conducted when visibility with the night vision viewer was less than 100 m from the ship.

[table of contents | back to top]

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.

[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
NSF Antarctic Sciences (NSF ANT)	ANT-9910096

[table of contents | back to top]