Supporting data for Bird Observations from the Northeast Pacific (NEP) Northern California Current cruises on the R/V New Horizon, NH0005 and NH0007, in 2000 (NEP project)

Website: https://www.bco-dmo.org/dataset/2338
Data Type: Cruise Results
Version: 1
Version Date: 2008-01-16

Project
» U.S. GLOBEC Northeast Pacific (NEP)

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

Contributors	Affiliation	Role
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Abstract
Supporting data for Bird Observations from the Northeast Pacific (NEP) Northern California Current cruises on the R/V New Horizon, NH0005 and NH0007, in 2000

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Coverage

Spatial Extent: **N**:44.67 **E**:-124.03 **S**:41.87 **W**:-131.38
Temporal Extent: 2000 - 2000

Dataset Description

GLOBEC NEP Northern California Current Bird Metadata
R/V New Horizon cruises NH0005 and 0007

These data provide background environmental data in support of the bird data.
Caution: Wind speed and direction may not be corrected for ship motion.

Any questions about the data, please contact the PIs:
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Updated Sept 13, 2005; gfh

Methods & Sampling

Seabird surveys were conducted continuously during daylight, using a 300-m-wide transect strip. Within that strip, birds were counted that occurred within the 90 degree quadrant off the ship's bow that offered the best observation conditions.

Data Processing Description

Observed counts of seabirds recorded as flying in a steady direction were adjusted for the effect of flight speed and direction relative to that of the ship (Spear et al., 1992; Spear and Ainley, 1997b). The effect of such flux is the most serious bias encountered during seabird surveys at sea (Spear et al., 2005). Known as random directional movement (as opposed to nonrandom directional movement, which occurs when birds are attracted or repelled from the survey vessel), this problem usually results in density overestimation because most species fly faster than survey vessels; densities of birds that fly slower or at a similar speed as the survey vessel (e.g., storm-petrels), or are flying in the same direction, are usually underestimated (Spear et al., 1992)

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Data Files

File
metabirds.csv (Comma Separated Values (.csv), 43.99 KB) MD5:1307c07ba87aa559dd3378378b32ad19 Primary data file for dataset ID 2338

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Parameters

Parameter	Description	Units
trans_no	Transect number, combination of year day and transect number for that day.	dimensionless
lat	Latitude at beginning of the transect, negative = South.	decimal degrees
lon	Longitude at beginning of the transect, negative = West.	decimal degrees
time_local	Time at the beginning of the transect, local time.	hours & minutes
trans_len_min	Time the transect lasted	minutes
sog	Ship speed over the ground	knots/hour
area	Ocean area surveyed in that transect	kilometers²
head_c	Ship course given as compass direction to the nearest 10 degrees, divided by 10. (e.g., a course of 180 degrees is recorded as 18)	degrees
wdir	Wind direction to nearest 10 degrees, divided by 10.	degrees
wspd	Wind speed	knots
trans_id	Identification number for transect.	dimensionless
year	Year in YYYY format	unitless

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Instruments

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

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Deployments

NH0005

Website	https://www.bco-dmo.org/deployment/57557
Platform	R/V New Horizon
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/nh0005/nh0005cr.pdf
Start Date	2000-05-28
End Date	2000-06-13
Description	**Methods & Sampling** Seabird surveys were conducted continuously during daylight, using a 300-m-wide transect strip. Within that strip, birds were counted that occurred within the 90 degree quadrant off the ship's bow that offered the best observation conditions. **Processing Description** Observed counts of seabirds recorded as flying in a steady direction were adjusted for the effect of flight speed and direction relative to that of the ship (Spear et al., 1992; Spear and Ainley, 1997b). The effect of such flux is the most serious bias encountered during seabird surveys at sea (Spear et al., 2005). Known as random directional movement (as opposed to nonrandom directional movement, which occurs when birds are attracted or repelled from the survey vessel), this problem usually results in density overestimation because most species fly faster than survey vessels; densities of birds that fly slower or at a similar speed as the survey vessel (e.g., storm-petrels), or are flying in the same direction, are usually underestimated (Spear et al., 1992)

NH0007

Website	https://www.bco-dmo.org/deployment/57558
Platform	R/V New Horizon
Report	http://globec.whoi.edu/nep/reports/ccs_cruises/nh0007/nh0007cr.pdf
Start Date	2000-07-27
End Date	2000-08-12
Description	**Methods & Sampling** Seabird surveys were conducted continuously during daylight, using a 300-m-wide transect strip. Within that strip, birds were counted that occurred within the 90 degree quadrant off the ship's bow that offered the best observation conditions. **Processing Description** Observed counts of seabirds recorded as flying in a steady direction were adjusted for the effect of flight speed and direction relative to that of the ship (Spear et al., 1992; Spear and Ainley, 1997b). The effect of such flux is the most serious bias encountered during seabird surveys at sea (Spear et al., 2005). Known as random directional movement (as opposed to nonrandom directional movement, which occurs when birds are attracted or repelled from the survey vessel), this problem usually results in density overestimation because most species fly faster than survey vessels; densities of birds that fly slower or at a similar speed as the survey vessel (e.g., storm-petrels), or are flying in the same direction, are usually underestimated (Spear et al., 1992)

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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.

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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 Division of Ocean Sciences (NSF OCE)	OCE-0534609
National Oceanic and Atmospheric Administration (NOAA)	unknown NEP NOAA

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