Event log from RVIB Nathaniel B. Palmer NBP1002 in the Western Antarctic Peninsula from March to May 2010 (Antarctic_micronek project)

Website: https://www.bco-dmo.org/dataset/487191
Data Type: Cruise Results
Version: 24 January 2014
Version Date: 2014-01-24

Project
» Possible climate-induced change in the distribution of Pleuragramma antarcticum on the Western Antarctic Peninsula Shelf (Antarctic_micronek)

Contributors	Affiliation	Role
Torres, Joseph J.	University of South Florida (USF)	Chief Scientist
Buesseler, Kenneth O.	Woods Hole Oceanographic Institution (WHOI)	Co-Chief Scientist
Simms, Alexander	Oklahoma State University (OSU)	Co-Chief Scientist
Allison, Dicky	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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Coverage

Spatial Extent: **N**:-62.9955 **E**:-56.4963 **S**:-70.42 **W**:-77.0007
Temporal Extent: 2010-03-20 - 2010-04-27

Dataset Description

RVIB Nathaniel B. Palmer Cruise 10-02, March 16-May 2, 2010 long of scientific activities including CTDs, MOCNESS tows, Sediment trap deployments, underwter particulate camera (UPC) deployments, Tucker trawls, Otter trawls, Penguin diet sampling, XBTs, Multibeam surveys, Blake trawls, and beach sampling.

There was a significant blog in the Tampa Bay times detailing the cruise events, some preliminary findings and of course, phenomenal pictures.

Photo from Ph.D. student Paul Suprenand.

Data Processing Description

BCO-DMO Processing Notes:

1) Added 'NBP1002' to all event numbers.

1b) Standardized instrument names.

2) Assumed NBST = Neutrally Buoyant Sediment Trap and UPC = Underwater Partical Camera

3) Moved Cast# from 'activity' name to column of its own and removed spaces from the 'activity' field

4) Combined deg decmin -> degdecmin and had to remove leading zero in Latitude degrees (max lat =90 in one direction)

5) Put in leading zeros so all times were HH:MM.

(4 and 5 necessary for jgofs/globec software)

6) changed 'person' column to 'si' for scientific investigator.

7) added column: ISOdateTime_start. BCO-DMO convention for interoperability.

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Data Files

File
NBP1002eventlog.csv (Comma Separated Values (.csv), 21.57 KB) MD5:84d50ae28d640995a96f1f8bf32968e5 Primary data file for dataset ID 487191

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Parameters

Parameter	Description	Units
event	event or sampling operation number	
instrument	instrument used to collect data, see: instrument list	
cast	cast number	
date_start	UTC date at the start of the operation, e.g. 20-Mar-10	dd-bbb-yy
time_start	UTC Time of day, 24 hour clock, at the start of the operation	HH:MM
lat_start	latitude, negative = South, at the start of the operation	decimal degrees
lon_start	longitude, negative = West, at the start of the operation	decimal degrees
si	scientific investigator's name responsible for this particular operation	
date_end	UTC date at end of the operation	mm-bbb-yy
time_end	UTC time at the end of the operation, 24 hour clock.	HH:MM
comment	free text comments	
lat_end	latitude at the end of the operation, if provided. S = negative	decimal degrees
lon_end	longitude at the end of the operation, if provided. W = negative.	decimal degrees
ISOdateTime_start_UTC	International Organization for Standardization (ISO) time standard format.	yyyy-mm-ddThh:mm:ss.ssZ

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Deployments

NBP1002

Website	https://www.bco-dmo.org/deployment/474285
Platform	RVIB Nathaniel B. Palmer
Report	http://dmoserv3.bco-dmo.org/data_docs/Antarctic_micronek/NBP10-02SitRepWhole.docx
Start Date	2010-03-16
End Date	2010-05-02

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Project Information

Possible climate-induced change in the distribution of Pleuragramma antarcticum on the Western Antarctic Peninsula Shelf (Antarctic_micronek)

Coverage: Western Antarctic Peninsula

*Pleuragramma antarcticu*m, the Antarctic silverfish, plays a key role in the trophic pyramid of the Antarctic coastal ecosystem, acting as food for larger fishes, flying and non-flying seabirds, pinnipeds, and whales. In turn, they are predators on coastal euphausiids, including both *Euphausia superba* and *E. crystallorophias*. Historically, *Pleuragramma* have been an important food source for Adélie Penguins of the Western Antarctic Peninsula (WAP), but during the last decade *Pleuragramma* have disappeared from the Adélie diet. We suggest that *Pleuragramma*'s absence from the diets of top predators is linked to the declining sea ice canopy, which serves as a nursery for eggs and larvae during the austral spring. The research will investigate four hydrographic regimes over the WAP continental shelf with the following features: (1) persistent gyral flows that act to retain locally spawned larvae, (2) spring sea ice that has declined in recent years (3) the prevalence of adult silverfish, and (4) the presence of breeding Adélie penguins whose diets vary in the proportions of silverfish consumed. The research will evaluate the importance of local reproduction versus larval advection, and the extent to which populations in the subregions of study are genetically distinct, via analysis of population structure, otolith microchemistry and molecular genetics of fish. The *Pleuragramma* data will be compared with penguin diet samples taken synoptically.

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Funding

Funding Source	Award
NSF Antarctic Sciences (NSF ANT)	ANT-0741348

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