

Cruise track from ARSV Laurence M. Gould LMG1312 in the West Antarctic Peninsula Shelf from November to December 2013 (Antarctic Inverts project)

Website: <https://www.bco-dmo.org/dataset/679426>

Data Type: Cruise Results

Version:

Version Date: 2016-12-02

Project

» [Genetic connectivity and biogeographic patterns of Antarctic benthic invertebrates](#) (Antarctic Inverts)

| Contributors | Affiliation | Role |
|---------------------------------|---|----------------------|
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Dataset Description

From IEDA:

Processed ship-based Navigation Data (version 2) from the Southern Ocean acquired during the Laurence M. Gould expedition LMG1312 (2013) This data set was acquired with a ship-based Navigation system during Laurence M. Gould expedition LMG1312 conducted in 2013 (Chief Scientist: Dr. Kenneth Halanych). These data files are of MGDS:Nav format and include Primary Navigation data and were processed after data collection. Funding was provided by NSF grant(s): ANT10-43745.

Methods & Sampling

Downloaded from IEDA at http://www.marine-geo.org/tools/search/Files.php?data_set_uid=20972

Data Processing Description

BCO-DMO Processing notes:

- downloaded and served the primary navigation data from IEDA: http://www.marine-geo.org/tools/search/Files.php?data_set_uid=20972

Reference:

Halanych, K., (2015). Processed ship-based Navigation Data (version 2) from the Southern Ocean acquired during the Laurence M. Gould expedition LMG1312 (2013). Integrated Earth Data Applications (IEDA). doi: <http://dx.doi.org/10.1594/IEDA/320972>.

Parameters

| Parameter | Description | Units |
|-----------|------------------------------------|-----------------|
| date | date; UTC; formatted as yyyy-mm-dd | unitless |
| time | time; UTC; formatted as HH:MM:SS | unitless |
| lon | longitude; east is positive | decimal degrees |
| lat | latitude; north is positive | decimal degrees |

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Instruments

| | |
|---|---|
| Dataset-specific Instrument Name | |
| Generic Instrument Name | Global Positioning System Receiver |
| Generic Instrument Description | The Global Positioning System (GPS) is a U.S. space-based radionavigation system that provides reliable positioning, navigation, and timing services to civilian users on a continuous worldwide basis. The U.S. Air Force develops, maintains, and operates the space and control segments of the NAVSTAR GPS transmitter system. Ships use a variety of receivers (e.g. Trimble and Ashtech) to interpret the GPS signal and determine accurate latitude and longitude. |

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Deployments

LMG1312

| | |
|--------------------|---|
| Website | https://www.bco-dmo.org/deployment/666516 |
| Platform | ARSV Laurence M. Gould |
| Report | http://dmoserv3.bco-dmo.org/jg/serv/BCO-DMO/OA_Antarctic_organisms/727518.html0%7Bdir=dmoserv3.who.edu/jg/dir/BCO-DMO/OA_Antarctic_organisms/,info=dmoserv3.bco-dmo.org/jg/info/BCO-DMO/OA_Antarctic_organisms/mg_ca_ratios%7D |
| Start Date | 2013-11-22 |
| End Date | 2013-12-20 |
| Description | Benthic invertebrate studies |

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Project Information

Genetic connectivity and biogeographic patterns of Antarctic benthic invertebrates (Antarctic Inverts)

Coverage: Antarctica

Extracted from the NSF award abstract:

The research will explore the genetics, diversity, and biogeography of Antarctic marine benthic invertebrates, seeking to overturn the widely accepted suggestion that benthic fauna do not constitute a large, panmictic population. The investigators will sample adults and larvae from undersampled regions of West Antarctica that, combined with existing samples, will provide significant coverage of the western hemisphere of the Southern Ocean. The objectives are: 1) To assess the degree of genetic connectivity (or isolation) of benthic invertebrate species in the Western Antarctic using high-resolution genetic markers. 2) To begin exploring planktonic larvae spatial and bathymetric distributions for benthic shelf invertebrates in the Bellinghausen, Amundsen and Ross Seas. 3) To continue to develop a Marine Antarctic Genetic Inventory (MAGI) that relates larval and adult forms via DNA barcoding.

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Funding

| Funding Source | Award |
|---|-----------------------------|
| NSF Office of Polar Programs (formerly NSF PLR) (NSF OPP) | PLR-1043745 |
| NSF Office of Polar Programs (formerly NSF PLR) (NSF OPP) | PLR-1043670 |

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