

# Cruise track for LMG0414 from ARSV Laurence M. Gouldm November - December 2004 (Antarctic Inverts project)

**Website:** <https://www.bco-dmo.org/dataset/679386>

**Data Type:** Cruise Results

**Version:**

**Version Date:** 2017-01-17

## Project

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

| Contributors                         | Affiliation   | Role                 |
|--------------------------------------|---|----------------------|
| <a href="#">Halanych, Kenneth M.</a> | Auburn University                                   | Chief Scientist      |
| <a href="#">Copley, Nancy</a>        | Woods Hole Oceanographic Institution (WHOI BCO-DMO) | BCO-DMO Data Manager |

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## Dataset Description

From IEDA:

Processed ship-based Navigation Data from the Antarctic Peninsula acquired during the Laurence M. Gould expedition LMG0414 (2004)

This data set was acquired with a ship-based Navigation system during Laurence M. Gould expedition LMG0414 conducted in 2004 (Chief Scientist: Dr. Kenneth Halanych). These data files are of Text File (ASCII) format and include Navigation data and were processed after data collection. Data were acquired as part of the project(s): Relevance of planktonic larval dispersal to endemism and biogeography of antarctic benthic invertebrates and *Salpa thompsoni* in the Southern Ocean: Bioenergetics, population dynamics and biogeochemical impact, and funding was provided by NSF grant(s): ANT03-38218 and ANT03-38290.

## 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=23561](http://www.marine-geo.org/tools/search/Files.php?data_set_uid=23561)

Reference:

Halanych, K., (2016). Processed ship-based Navigation Data from the Antarctic Peninsula acquired during the Laurence M. Gould expedition LMG0414 (2004). Integrated Earth Data Applications (IEDA). doi: <http://dx.doi.org/10.1594/IEDA/323561>.

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## Data Files

| File  |
|---|
| <b>LMG0414_cruisetrack.csv</b> (Comma Separated Values (.csv), 1.43 MB)<br>MD5:783734b29ad51adab01528d6033c3368 |
| Primary data file for dataset ID 679386   |

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## 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

### LMG0414

|                   |   |
|-------------------|---|
| <b>Website</b>    | <a href="https://www.bco-dmo.org/deployment/57973">https://www.bco-dmo.org/deployment/57973</a> |
| <b>Platform</b>   | ARSV Laurence M. Gould  |
| <b>Start Date</b> | 2004-11-25  |
| <b>End Date</b>   | 2004-12-14  |

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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                       |
|---|-----------------------------|
| <a href="#">NSF Office of Polar Programs (formerly NSF PLR) (NSF OPP)</a> | <a href="#">PLR-1043745</a> |
| <a href="#">NSF Office of Polar Programs (formerly NSF PLR) (NSF OPP)</a> | <a href="#">PLR-1043670</a> |

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