

Video of acorn worm tubes, Halanych et al (2013) Nature Comm. (Antarctic Inverts project)

Website: <https://www.bco-dmo.org/dataset/671609>

Data Type: Cruise Results

Version:

Version Date: 2016-12-22

Project

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

Contributors	Affiliation	Role
Halanych, Kenneth M.	Auburn University	Principal Investigator
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Dataset Description

This dataset is a time lapse .MOV video of Antarctic hemichordates on the sea bottom, analyzed in Halanych et al (2013).

Related Reference: Halanych, K.M., J.T. Cannon, A.R. Mahon, B.J. Swalla, C.R. Smith. 2013. Tubicolous acorn worms from Antarctica. Nature Communications DOI://10.1038/ncomms3738

Related Dataset: [Halanych_2013_T1: NCBI accessions](#)

Methods & Sampling

Scientific research expeditions were aboard the RVIB Nathaniel B. Palmer in 2008 to the Antarctic Peninsula and 2013 to the Ross Sea. The time-lapse system employed a YoYo camera system comprised of an ocean imaging systems (OIS) DSC 10,000 digital still camera with an OIS 3831 strobe. It was deployed on the seafloor on an aluminum tripod with the camera elevation of 163 cm and a camera angle from horizontal (inclination) of 45 degrees. The interval between photos in the time-lapse mode was 12 h. The time-lapse camera was located on the west Antarctic Peninsula shelf floor at Station B (64 46.4200S, 65 23.6690 W) at a depth of 599 m. Images of the enteropneust and its tube were obtained from 28 July to 2 August 2008.

Data Processing Description

BCO-DMO Processing notes:

- added conventional header with dataset name, PI name, version date
- modified parameter names to conform with BCO-DMO naming conventions
- added link to file download and download file size info

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Data Files

File
Halanych_2013_video.csv (Comma Separated Values (.csv), 209 bytes) MD5:5b3507445713f8c99bb10fab5dc1c15
Primary data file for dataset ID 671609

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Parameters

Parameter	Description	Units
description	description of video contents	unitless
file_size	file size	megabytes
file_link	link to download file	unitless

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Instruments

Dataset-specific Instrument Name	Ocean Imaging Systems (OIS) DSC 10,000 digital still camera with an OIS 3831 strobe
Generic Instrument Name	Camera
Generic Instrument Description	All types of photographic equipment including stills, video, film and digital systems.

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Deployments

Halanych_lab_2011-16

Website	https://www.bco-dmo.org/deployment/671488
Platform	Auburn University lab
Start Date	2011-08-01
End Date	2016-07-31
Description	Invertebrate genomics

NBP1210

Website	https://www.bco-dmo.org/deployment/568987
Platform	RVIB Nathaniel B. Palmer
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	2013-01-06
End Date	2013-02-09
Description	Seaglider AUV-SG-503-2012 was recovered on this cruise.

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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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