Cruise Track from R/V Hugh R. Sharp HRS070714AB in the Chesapeake Bay from July 2007 (Assessing Roseobacter activities project)

Website: https://www.bco-dmo.org/dataset/3487
Version: 13 June 2011
Version Date: 2011-06-13

Project
» Determining growth rates of specific bacterioplankton (Assessing Roseobacter activities)

Contributors	Affiliation	Role
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Table of Contents

Dataset Description

Cruise track generated from R/V Hugh R. Sharp hourly Surface Mapping System (SMS) files.
The SMS records navigation, meteorological and sea surface data every 10 seconds.
Date, Time, Lat, Lon, 1 minute fixes

Methods & Sampling

Generated by BCO-DMO staff from R/V Hugh R. Sharp hourly SMS files

Data Processing Description

Generated by BCO-DMO staff from R/V Hugh R. Sharp hourly SMS files

[table of contents | back to top]

Data Files

File
CruiseTrack.csv (Comma Separated Values (.csv), 239.34 KB) MD5:96ed1fc6909b64378b06c5f21c0f51cf Primary data file for dataset ID 3487

[table of contents | back to top]

Parameters

Parameter	Description	Units
date	date (GMT)	YYYYMMDD
time	time (GMT)	HHMMSS
lon	Station longitude (West is negative)	decimal degrees
lat	Station latitude (South is negative)	decimal degrees
cruise_id	cruise_id	text

[table of contents | back to top]

Instruments

Dataset-specific Instrument Name	Global Positioning System Receiver
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.

[table of contents | back to top]

Deployments

HRS070714AB

Website	https://www.bco-dmo.org/deployment/58668
Platform	R/V Hugh R. Sharp
Start Date	2007-07-14
End Date	2007-07-19
Description	Funded by: NSF OCE-0550485 Original cruise data are available from the NSF R2R data catalog (http://www.rvdata.us/catalog/HRS070714AB)

[table of contents | back to top]

Project Information

Determining growth rates of specific bacterioplankton (Assessing Roseobacter activities)

Coverage: Chesapeake Bay, 38N 76W

While an improved picture of the diversity and metabolic capabilities of environmentally significant microorganisms now exists, direct links between phylogenetic diversity and activity of heterotrophic marine bacterioplankton remain elusive. We propose to address this gap with a series of laboratory and field experiments designed with the ultimate goal of measuring in situ growth rates of specific members of the bacterioplankton by direct measurement of the expression of genes involved in fundamental cellular processes (e.g. cellular division, DNA replication, etc.). An advantage of this approach is that instantaneous population parameters are measured directly without labile DOC amendment or incubation. Also, the activity of specific bacterial populations, rather than entire communities, will be monitored and thus provide an improved understanding of the significance of community structure to ecosystem function. Efforts will focus on the Roseobacter lineage of marine bacteria. Members of this clade are ubiquitous and often abundant in marine plankton, have been linked to specific and significant biogeochemical roles and are a main focus of recent whole genome sequencing efforts.

[table of contents | back to top]

Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-0550485

[table of contents | back to top]