

# 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

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## Project

» [Determining growth rates of specific bacterioplankton](#) (Assessing Roseobacter activities)

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## 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

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## Data Files

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

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## 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

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## Instruments

<b>Dataset-specific Instrument Name</b>	Global Positioning System Receiver
<b>Generic Instrument Name</b>	Global Positioning System Receiver
<b>Generic Instrument Description</b>	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

**HRS070714AB**

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

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## 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.

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## Funding

Funding Source	Award
<a href="#">NSF Division of Ocean Sciences (NSF OCE)</a>	<a href="#">OCE-0550485</a>

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