Nutrient data from the western Gulf of Maine (bottles) collected on R/V Gulf Challenger (GC2002-4) in the western Gulf of Maine from May to December 2002-2004 (REACH project)

Website: https://www.bco-dmo.org/dataset/3362
Data Type: Cruise Results
Version: 20 June 2017
Version Date: 2010-07-23

Project
» Regional Ecology And Coastal Hydrography (REACH)

Contributors	Affiliation	Role
Bucklin, Ann	University of New Hampshire (UNH/OPAL)	Principal Investigator
Manning, Chris	University of New Hampshire (UNH/OPAL)	Scientist
Allison, Dicky	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

Table of Contents

- Coverage
- Dataset Description
- Data Files
- Parameters
- Instruments
- Deployments
- Project Information
- Funding

Coverage

Spatial Extent: **N**:43.034 **E**:-70.416 **S**:42.991 **W**:-70.58
Temporal Extent: 2002-05-24 - 2004-06-28

Dataset Description

Hydrography, nutrients, chemistry and phytoplankton data from the western Gulf of Maine

[table of contents | back to top]

Data Files

File
hydrography.csv (Comma Separated Values (.csv), 57.79 KB) MD5:e5e6bf27208e5965d27d77cb58edd791 Primary data file for dataset ID 3362

[table of contents | back to top]

Parameters

Parameter	Description	Units

date_cruiseid	cruise identifier	
year	year	
yrday_local	day of year local time; Jan. 1 = 1	
lat	latitude; North is Positive; South is negative	decimal degrees
lon	longitude; East is Positive; West is negative	decimal degrees
station	where the data were collected	
depth	depth the sample was taken	meters
temp	temperature	degrees C
sal	salinity	psu
trans	light transmissivity	percentage
fluor	fluorescence from the CTD	micrograms per liter
PAR	photosynthetically available radiation	microEinsteins per square centimeter
sigma_t	density of the sea water	g/cm3
PO4	Phosphate concentration	micromoles/liter
NH4	Ammonia concentration	micromoles/liter
NO3	nitrate concentration	micromoles/liter
DIN	concentration of Dissolved Inorganic Nitrogen	micromoles/liter
N_P_ratio	Nitrogen to Phosphorus ratio	dimensionless
chla	Chlorophyll-a concentration	micrograms/liter

SiO4	silicate concentration	micromoles/liter

[table of contents | back to top]

Instruments

Dataset-specific Instrument Name	CTD profiler
Generic Instrument Name	CTD - profiler
Generic Instrument Description	The Conductivity, Temperature, Depth (CTD) unit is an integrated instrument package designed to measure the conductivity, temperature, and pressure (depth) of the water column. The instrument is lowered via cable through the water column. It permits scientists to observe the physical properties in real-time via a conducting cable, which is typically connected to a CTD to a deck unit and computer on a ship. The CTD is often configured with additional optional sensors including fluorometers, transmissometers and/or radiometers. It is often combined with a Rosette of water sampling bottles (e.g. Niskin, GO-FLO) for collecting discrete water samples during the cast. This term applies to profiling CTDs. For fixed CTDs, see https://www.bco-dmo.org/instrument/869934.

[table of contents | back to top]

Deployments

GC2002-4

Website	https://www.bco-dmo.org/deployment/58067
Platform	R/V Gulf Challenger
Start Date	2002-05-24
End Date	2004-06-28
Description	This is one deployment designation for all the individual trips to the four stations of the REACH time series. The first visit was on 24 May 2002 and the last one on 28 June 2004. **Methods & Sampling** This is an accumulation of all the deployments that went out to visit these four sites during these three years.

[table of contents | back to top]

Project Information

Regional Ecology And Coastal Hydrography (REACH)

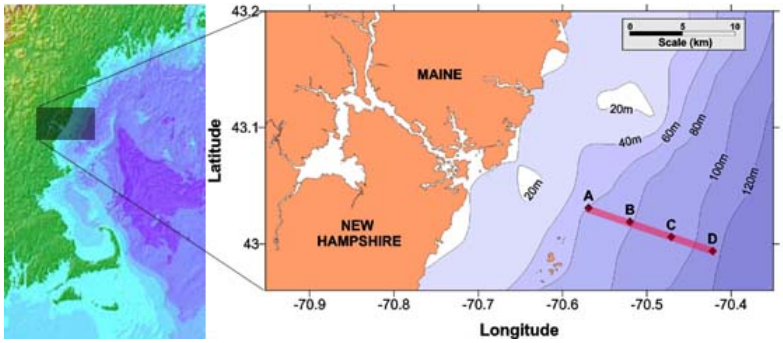
Coverage: Western Gulf of Maine

From April 2002 through June 2004, the Regional Ecology and Coastal Hydrography (REACH) project conducted monthly field sampling in the western Gulf of Maine. REACH is one of five seed projects associated

with the UNH center of excellence for Coastal Ocean Observing and Analysis (COOA).

The objective of REACH is to document and understand the functional inter-relationships among the major elements of the planktonic assemblage in the waters of western Gulf of Maine. The field program characterized the physical dynamics, nutrient availability, and phytoplankton and zooplankton assemblages. A long-term goal of this effort is to work toward a predictive index of harmful algal bloom (HAB) occurrences in near-shore waters of the western Gulf of Maine based on an integrated assessment of the planktonic community. The comprehensive nature of the study also enables this work to serve as a baseline for the western Gulf of Maine, against which future studies can be compared.

An innovative aspect of this project is the integrated analysis of the entire planktonic assemblage at the species level - including both phytoplankton and zooplankton species abundances in the same samples that are used to determine toxic dinoflagellate counts. In addition, we will ensure detailed examination and characterization of the physical oceanographic and meteorological setting from real-time data derived from satellites, remote sensors on buoys, and commercial fishing boats. (from project website)



The REACH transect runs from 10km to 22km offshore of the coast of Maine and New Hampshire, USA. Sampling stations are marked by letters A, B, C, and D.

[table of contents | back to top]

Funding

Funding Source	Award
Coastal Ocean Observing and Analysis (COOA)	unknown REACH COOA

[table of contents | back to top]