

CTD and bottle rosette station event log from R/V Seward Johnson cruise SJ0516 in the North Atlantic, largely between Ireland and Iceland in 2005 (NASB 2005 project)

Website: <https://www.bco-dmo.org/dataset/3104>

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Project

» [North Atlantic Spring Bloom 2005](#) (NASB 2005)

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Dataset Description

CTD and bottle rosette station event log

Methods & Sampling

The scientific sampling event log was created by BCO-DMO by combining several Excel spreadsheets in which sampling location positions were reported by the originating investigators.

The cruise was divided into two legs, first a transit to the Azores (leg 1, Florida to the Azores) followed by the second leg heading north to Iceland (leg 2, Azores to Iceland).

The 1-* station identifiers indicate places where several investigators took limited samples from the underway system during leg 1 (transit). These do not represent vertical profiles station location. The 2-* station identifiers indicate sampling events from leg 2.

Note that 'a' and 'b' designations (e.g. 2-13a and 2-13b) were used to designate sequential casts at the same station location and that there is no significance to their order, a preceding b or the reverse.

All latitude and longitude values were adjusted as needed from the original spreadsheets, to be consistent with the convention of North being positive and West being negative.

Data Processing Description

none provided

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Data Files

| File |
|---|
| event_log.csv (Comma Separated Values (.csv), 4.51 KB) MD5:bbdf34b75399c969672864e87feaf4c1 |
| Primary data file for dataset ID 3104 |

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Parameters

| Parameter | Description | Units |
|-----------|---|-----------------|
| cruise_ID | cruise designation; name | dimensionless |
| station | station location identifier | dimensionless |
| ev_type | sampling event type abbreviation code; CTD = Seabird 911 CTD profile, UW = sample from ship's underway system | dimensionless |
| date | date (GMT) start of sampling | dimensionless |
| time | time (GMT) start of sampling | dimensionless |
| lon | longitude, in decimal degrees, East is positive, negative denotes West | decimal degrees |
| lat | latitude, in decimal degrees, North is positive, negative denotes South | decimal degrees |

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Deployments

SJ0516

| | |
|--------------------|---|
| Website | https://www.bco-dmo.org/deployment/57981 |
| Platform | R/V Seward Johnson |
| Start Date | 2005-06-03 |
| End Date | 2005-07-06 |
| Description | <p>This R/V Seward Johnson cruise, funded by NSF OCE/BIO (OCE-0423418), was conducted as part of the NASB 2005 US/EC Collaboration on Potential Climate Change Impacts on Algal Community Structure and Biogeochemistry During the North Atlantic Spring Bloom. It is uncertain whether a cruise ID was ever assigned. The US State Department designator was SJ-2004-126, possibly reflecting request for approval that began in 2004. The Oceanic Research Ship Schedules database (from the Ocean Information Center maintained by the College of Marine & Earth Studies at the University of Delaware) assigned JOH/05/0063 to leg 2 of this cruise. The BCO-DMO assigned SJ0516 as the unique cruise ID since leg 2 was the sixteenth cruise for R/V Seward Johnson in 2005. Cruise Synopsis adapted from the original text written by NASB 2005 project investigator Matthew Cottrell The R/V Seward Johnson departed from Fort Pierce, FL in June, 2005. The vessel first transited to the Azores (cruise leg 1, Florida to the Azores) where it spent two days before heading north to Iceland (cruise leg 2, Azores to Iceland). The purpose of this cruise was to explore the ecology of heterotrophic and photoheterotrophic bacteria in the North Atlantic. Surface waters were sampled during the transit across the oligotrophic Atlantic, passing Bermuda on the way. Depth profiles were sampled on the leg from the Azores to Iceland. Water was collected for a number of analyses. One of the most important assessed the effect of light on the growth of heterotrophic bacteria using 3H-leucine incorporation and the uptake of other organic compounds. We were especially interested in cyanobacteria, including Prochlorococcus and Synechococcus. Flow cytometry and flow sorting of radiolabeled cells was key to this project. Other analyses included bacterial abundance, bacterial production, bacterial community structure (FISH), community activity (Micro-FISH), chlorophyll a, bacterial chlorophyll a, and the abundance of aerobic anoxygenic phototrophic (AAP) bacteria.</p> |

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Project Information

North Atlantic Spring Bloom 2005 (NASB 2005)

Coverage: North Atlantic

Climate-related shifts in phytoplankton assemblages may have profound implications for oceanic feedbacks on the atmosphere, and for human use of marine resources. Particular algal groups are largely responsible for crucial processes like vertical carbon export, biogenic calcification and silicification, production of climatically active gases like dimethylsulfide (DMS), and for sustaining food webs that lead to economically valuable higher trophic levels. The North Atlantic Spring Bloom 2005 (NASB 2005) research program was designed to investigate potential climate change impacts on algal community structure and biogeochemistry during the North Atlantic Spring Bloom, a regime that is ideal for determining how changing ocean conditions may affect both calcareous and siliceous algae.

The research was coordinated with CarboOcean, a major European Union funded activity led by investigators from the Alfred Wegener Institute.

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Funding

| Funding Source | Award |
|--|-----------------------------|
| NSF Division of Ocean Sciences (NSF OCE) | OCE-0423418 |

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