

Cruise sampling event log from R/V Oceanus, R/V Weatherbird II OC404-01, OC404-04, OC415-01, OC415-02, OC415-03, OC415-04, WB0409, WB0413 in the Sargasso Sea, 2004-2005 (EDDIES project)

Website: <https://www.bco-dmo.org/dataset/3042>

Version: 04 March 2009

Version Date: 2009-03-04

Project

» [Eddies Dynamics, Mixing, Export, and Species composition](#) (EDDIES)

Program

» [Ocean Carbon and Biogeochemistry](#) (OCB)

Contributors	Affiliation	Role
Bates, Nicholas	Bermuda Biological Station for Research (BBSR)	Principal Investigator
Ledwell, James R.	Woods Hole Oceanographic Institution (WHOI)	Principal Investigator
McGillicuddy, Dennis J.	Woods Hole Oceanographic Institution (WHOI)	Principal Investigator
Chandler, Cynthia L.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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Dataset Description

shipboard scientific sampling event log

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Data Files

File

log_OC404-01.csv (Comma Separated Values (.csv), 30.98 KB)
MD5:07d66135d0b670cd214c665e32503302

version 03 March 2009
(original posting: 13 December 2005)

Cruise sampling event log
prepared by: EDDIES Project Office and OCB DMO

project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition)
cruise: OC404-1 EDDIES Survey 1
platform: R/V OCEANUS
related: ops coordinated with R/V WEATHERBIRD II in Sargasso Sea
cruise dates: 11 June 2004 to 03 July 2004
ports: Woods Hole, MA to St. Georges, Bermuda
Chief Scientist: Dennis McGillicuddy (NSF: OCE0241310)

log_OC404-04.csv (Comma Separated Values (.csv), 24.70 KB)
MD5:b40e7e866103a6202bf8fda21ebc0923

version 30 June 2006
(original posting: 13 December 2005)

Cruise sampling event log
prepared by: EDDIES Project Office and OCB DMO

project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition)
cruise: OC404-4 EDDIES Survey 2
platform: R/V OCEANUS
related: ops coordinated with R/V WEATHERBIRD II in Sargasso Sea
cruise dates: 25 July 2004 to 12 August 2004
Chief Scientist: Dennis McGillicuddy (NSF: OCE0241310)
ports: St. Georges, Bermuda to St. Georges, Bermuda

log_OC415-01.csv (Comma Separated Values (.csv), 29.75 KB)
MD5:2c94d84e9460c0e8d3b5883e83dbe6a8

version 31 August 2009
(original posting: 22 December 2005)

Cruise sampling event log
prepared by: EDDIES Project Office and OCB DMO

project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition)
cruise: OC415-1 EDDIES Survey 1
platform: R/V OCEANUS
related: ops coordinated with R/V WEATHERBIRD II cruise WB0506
location: Sargasso Sea
cruise dates: 20 June 2005 to 15 July 2005
ports: Woods Hole, MA to St. Georges, Bermuda
Chief Scientist: Dennis McGillicuddy (NSF: OCE0241310)
Cruise track (see cruise INVENTORY list)

090304.clc. times and event number corrected for XBT 14 and 147;
correct times taken from XBT data file headers
090831.clc. completed some missing MOCNESS tow events

File

log_OC415-02.csv (Comma Separated Values (.csv), 7.42 KB)
MD5:e3ed74ca5a1f2c9decee8e9d6870271c

version 14 March 2007
(original version 28 February 2006)

OCEANUS 415-2 Tracer 1 cruise event log
Prepared by WHOI OCB DMO from original cruise event log (Excel file)

project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition)
cruise: OC415-2 EDDIES Tracer 1
platform: R/V OCEANUS
location: Sargasso Sea
cruise dates: 18 July 2005 to 05 August 2005
ports: St. Georges, Bermuda to St. Georges, Bermuda
Chief Scientist: Jim Ledwell (NSF: OCE-0241310)

log_OC415-03.csv (Comma Separated Values (.csv), 24.54 KB)
MD5:bdabc2fd22fdea5ee136e810ecd85ffa

version 31 August 2009
(original posting: 17 February 2006)

Cruise sampling event log
prepared by: EDDIES Project Office and OCB DMO

project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition)
cruise: OC415-3 EDDIES Survey 2
platform: R/V OCEANUS
related: ops coordinated with R/V WEATHERBIRD II cruise WB0508
location: Sargasso Sea
cruise dates: 07 August 2005 to 26 August 2005
ports: St. Georges, Bermuda to St. Georges, Bermuda
Chief Scientist: Dennis McGillicuddy (NSF: OCE-0241310)
Cruise track (see cruise INVENTORY list)

Note: no CTD or bottle data reported for CTD cast 55 (productivity cast).

090831.clc. completed some missing MOCNESS tow events

log_OC415-03.csv (Comma Separated Values (.csv), 24.54 KB)
MD5:bdabc2fd22fdea5ee136e810ecd85ffa

version 31 August 2009
(original posting: 17 February 2006)

Cruise sampling event log
prepared by: EDDIES Project Office and OCB DMO

project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition)
cruise: OC415-3 EDDIES Survey 2
platform: R/V OCEANUS
related: ops coordinated with R/V WEATHERBIRD II cruise WB0508
location: Sargasso Sea
cruise dates: 07 August 2005 to 26 August 2005
ports: St. Georges, Bermuda to St. Georges, Bermuda
Chief Scientist: Dennis McGillicuddy (NSF: OCE-0241310)
Cruise track (see cruise INVENTORY list)

Note: no CTD or bottle data reported for CTD cast 55 (productivity cast).

090831.clc. completed some missing MOCNESS tow events

File	
log_OC415-04.csv	(Comma Separated Values (.csv), 4.19 KB) MD5:40aad467540a9f79f0dcaa708d334c29
<p>version 01 March 2007</p> <p>OCEANUS 415-4 Tracer 2 cruise event log Prepared by WHOI OCB DMO from original cruise event log (Excel file)</p> <p>project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition) cruise: OC415-4 EDDIES Tracer 2 platform: R/V OCEANUS location: Sargasso Sea cruise dates: 29 August 2005 to 14 September 2005 ports: St. Georges, Bermuda to Woods Hole, MA Chief Scientist: Jim Ledwell (NSF: OCE-0241310)</p>	
log_WB0409.csv	(Comma Separated Values (.csv), 9.60 KB) MD5:f923a352e4f39cd2b05c3e4359109587
<p>version 30 October 2007 Cruise sampling event log</p> <p>prepared by: WHOI OCB DMO from merged cruise sampling event log Contributed by: Courtney Ewart (UCSB)</p> <p>project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition) cruise: WB0409 EDDIES Transect 1 platform: R/V WEATHERBIRD II related: ops coordinated with R/V OCEANUS in Sargasso Sea cruise dates: 23 June 2004 to 03 July 2004 ports: St. Georges, Bermuda to St. Georges, Bermuda Chief Scientist: Nick Bates (NSF: OCE-0241310)</p> <p>All recorded sampling events from the cruise are reported in this log.</p>	
log_WB0413.csv	(Comma Separated Values (.csv), 5.85 KB) MD5:8e224bdd2a3bead9d3e5881e7e3baace
<p>version 30 October 2007 Cruise sampling event log</p> <p>prepared by: WHOI OCB DMO from merged cruise sampling event log Contributed by: Courtney Ewart (UCSB)</p> <p>project: EDDIES (Eddies Dynamics, Mixing, Export, and Species composition) cruise: WB0413 EDDIES Transect 2 platform: R/V WEATHERBIRD II related: ops coordinated with R/V OCEANUS in Sargasso Sea cruise dates: 02 August 2004 to 11 August 2004 ports: St. Georges, Bermuda to St. Georges, Bermuda Chief Scientist: Nick Bates (NSF: OCE-0241310)</p> <p>All recorded sampling events from the cruise are reported in this log.</p>	

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Parameters

Parameter	Description	Units
event	unique sampling event number composite of GMT date and time	YYYYMMDDhhmm
date	start date of event (GMT)	YYYYMMDD
time	start time of event (GMT)	hhmm
lon	longitude, negative denotes West	decimal degrees
lat	latitude, negative denotes South	decimal degrees
sta	station number	dimensionless
Pmax	pressure, maximum recorded	decibars
ev_type	sampling event type	dimensionless
sampling_code	concatenated string: cruise_ID, sampling method, and 2 digit station	dimensionless
activity_and_comments	description of sampling event	dimensionless
cast	cast number for event	dimensionless
comments	description of event	dimensionless
Pmax_n	pressure, nominal maximum for cast	decibars
sampling_type	sampling device type	dimensionless
depth_max	maximum depth of sampling	meters
dist_EC	distance from eddy center	kilometers
radiometer_file	file associated with radiometer	dimensionless

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Deployments

OC404-01

Website	https://www.bco-dmo.org/deployment/57956
Platform	R/V Oceanus
Report	http://ocb.whoi.edu/EDDIES/CRUISES/2004/OC404-1_Draft_Cruise_Report.pdf
Start Date	2004-06-11
End Date	2004-07-03
Description	<p>EDDIES 2004 Survey 1 cruise Funded by: NSF OCE-0241310 Original cruise data are available from the NSF R2R data catalog (Cruise DOI: 10.7284/900337)</p> <p>Methods & Sampling PI: Dennis McGillicuddy (Chief Scientist) of: Woods Hole Oceanographic Institution (WHOI) dataset: Cruise sampling event log dates: 12 June 2004 to 03 July 2004 (20040612-20040703) location: N: 37.934 S: 28.641 W: -68.716 E: -58.754 project/cruise: EDDIES/OC404-1 2004 Survey 1 platform: R/V Oceanus Change history: YMMDD 050616: downloaded original station list from EDDIES data web site; 051213: added to OCB database by Cyndy Chandler, OCB DMO 060316: split event to add date and time 060503: full cruise event log provided by EDDIES project office (replaces original version generated by OCB CDMO) 060523: CTD event metadata replaced by values in CTD header records; added CTD #65 metadata from sampling cast sheets 060629: add Pmax; add CTD station number to support bottle merge 060811: XBT_5 corrected from XBT_15 event on date 20040613 070227: modify ev_type codes to match merged log (typos) 090302: correct invalid times (> 60 minues) for event 200406211477 and 200406221572; correct times 1448 and 1529 respectively and change event number to reflect corrected time Related information: Cruise track</p>

OC404-04

Website	https://www.bco-dmo.org/deployment/57961
Platform	R/V Oceanus
Report	http://ocb.whoi.edu/EDDIES/CRUISES/2004/OC404-4_Draft_Cruise_Report.pdf
Start Date	2004-07-25
End Date	2004-08-12
Description	<p>EDDIES project 2004 Survey 2 cruise Funded by: NSF OCE-0241310 Original cruise data are available from the NSF R2R data catalog</p> <p>Methods & Sampling PI: Dennis McGillicuddy of: Woods Hole Oceanographic Institution (WHOI) dataset: Cruise sampling event log dates: 25 July 2004 to 11 August 2004 (20040725-20040811) location: N: 32.499 S: 29.954 W: -66.613 E: -59.450 project/cruise: EDDIES/OC404-4 2004 Survey 2 platform: R/V Oceanus Methodology: none provided with data Change history: YMMDD 050616: downloaded original station list from EDDIES data web site; 051213: added to OCB database by Cyndy Chandler, OCB DMO 060316: split event to add date and time 060503: full cruise event log provided by EDDIES project office (replaces original version generated by OCB CDMO) 060630: CTD event metadata replaced by values in CTD header records; add CTD station number to support bottle merge Related information: Cruise track</p>

OC415-01

Website	https://www.bco-dmo.org/deployment/57962
Platform	R/V Oceanus
Report	http://ocb.whoi.edu/EDDIES/CRUISES/2005/OC415_Draft_Cruise_Report_050722.pdf
Start Date	2005-06-20
End Date	2005-07-15
Description	<p>EDDIES project 2005 Survey 1 cruise Funded by: NSF OCE-0241310 Original cruise data are available from the NSF R2R data catalog</p> <p>Methods & Sampling PI: Dennis McGillicuddy (Chief Scientist) of: Woods Hole Oceanographic Institution (WHOI) dataset: Cruise sampling event log dates: 20 June 2005 to 15 July 2005 (20050620-20050715) location: N: 40.753 S: 28.559 W: -70.546 E: -61.920 project/cruise: EDDIES/OC415-1 2005 Survey 1 platform: R/V Oceanus Methodology: none provided with data Change history: YMMDD 051220: downloaded original cast list from EDDIES data web site; added to OCB database by Cyndy Chandler, OCB DMO 060503: full cruise event log provided by EDDIES project office (replaces original version generated by OCB CDMO) 060630: CTD event metadata replaced by values in CTD header records; add CTD station number to support bottle merge 090304: BCO-DMO corrected times and event number corrected for XBT 14 and 147; correct times taken from XBT data file headers</p>

OC415-02

Website	https://www.bco-dmo.org/deployment/57964
Platform	R/V Oceanus
Start Date	2005-07-18
End Date	2005-08-04
Description	<p>EDDIES project 2005 Tracer 1 cruise Funded by: NSF OCE-0241310 Original cruise data are available from the NSF R2R data catalog</p> <p>Methods & Sampling PI: Jim Ledwell (Chief Scientist) of: Woods Hole Oceanographic Institution (WHOI) dataset: Cruise sampling event log dates: 18 July 2005 to 02 August 2005 location: N: 32.017 S: 28.154 W: -67.953 E: -65.017 project/cruise: EDDIES/OC415-2 2005 Tracer 1 platform: R/V Oceanus Methodology: none provided with data Change history: YMMDD 060214: downloaded original data from EDDIES data web site; added to OCB database by Cyndy Chandler, OCB DMO 070314: spilt SAM ev_type to cast number and ev_type to be consistent with OC415-4 cruise and support data joins OCB DMO Note: data were taken from original Excel format event log Corrections: XBT Seq#2 time corrected from 2925 to 2024 Caution: The location data in this cruise event log for CTD casts 4, 19 and 28 differs by more than .01 from the positions as recorded in the CTD cast data file headers: event log positions: cast 4 lon: -66.930 lat: 30.526 lon: -66.927 lat: 30.624 cast 19 lon: -66.577 lat: 28.406 lon: -66.560 lat: 28.406 cast 28 lon: -67.516 lat: 30.020 lon: -67.516 lat: 30.031</p>

OC415-03

Website	https://www.bco-dmo.org/deployment/57965
Platform	R/V Oceanus
Report	http://ocb.whoi.edu/EDDIES/CRUISES/2005/OC415-3_CrRptDraft_091405.pdf
Start Date	2005-08-07
End Date	2005-08-26
Description	<p>EDDIES project 2005 Survey 2 cruise Funded by: NSF OCE-0241310 Original cruise data are available from the NSF R2R data catalog</p> <p>Methods & Sampling PI: Dennis McGillicuddy (Chief Scientist) of: Woods Hole Oceanographic Institution (WHOI) dataset: Cruise sampling event log dates: 07 August 2005 to 25 August 2005 (20050807-20050825) location: N: 33.243 S: 29.279 W: -69.412 E: -63.146 project/cruise: EDDIES/OC415-3 2005 Survey 2 platform: R/V Oceanus Methodology: none provided with data Change history: YYMMDD 060217: data were recovered from NMEA header records in CTD data files downloaded from EDDIES data web site; added to OCB database by Cyndy Chandler, OCB DMO 060503: full cruise event log provided by EDDIES project office (replaces original version generated by OCB CDMO) 060630: CTD event metadata replaced by values in CTD header records; add CTD station number to support bottle merge</p>

OC415-04

Website	https://www.bco-dmo.org/deployment/57967
Platform	R/V Oceanus
Report	http://ocb.whoi.edu/EDDIES/CRUISES/2005/OC415-4_cruise_report.pdf
Start Date	2005-08-29
End Date	2005-09-15
Description	<p>EDDIES project 2005 Tracer 2 cruise Funded by: NSF OCE-0241310 The cruise end date was originally entered as 9/14/2005 (source: UNOLS final ship schedule), but this was changed in February 2015 to end date 9/15/2005. The official record from the vessel operator shows the end date being 9/15/2015. Original cruise data are available from the NSF R2R data catalog</p> <p>Methods & Sampling PI: Jim Ledwell (Chief Scientist) of: Woods Hole Oceanographic Institution (WHOI) dataset: Cruise sampling event log dates: 29 August 2005 to 14 September 2005 (20050829-20050914) location: N: 41.367 S: 28.734 W: -70.926 E: -69.196 project/cruise: EDDIES/OC415-4 2005 Tracer 2 platform: R/V Oceanus Methodology: none provided with data Change history: YYMMDD 060214: downloaded original data from EDDIES data web site; 060301: added to OCB database by Cyndy Chandler, OCB DMO 070301: corrected event numbers and times for CTD casts 1 and 7 DMO Note regarding QA</p>

WB0409

Website	https://www.bco-dmo.org/deployment/57955
Platform	R/V Weatherbird II
Start Date	2004-06-23
End Date	2004-07-02
Description	<p>EDT1 2004 Transect 1 cruise Funded by: NSF OCE-0241310</p> <p>Methods & Sampling PI: Nick Bates (Chief Scientist) of: Bermuda Biological Station for Research (BBSR) dataset: Cruise sampling event log dates: 24 June 2004 to 02 July 2004 (20040624-20040702) location: N: 31.928 S: 29.773 W: -66.178 E: -64.082 project/cruise: EDDIES/WB0409 2004 Transect 1 (EDT1) platform: R/V Weatherbird II Methodology: processing notes are available with the full merged version Change history: 051213: create merged cruise log from OC404-1 and WB0409 CTD event logs 060313: add date and time fields (cchandler, OCB DMO) 070227: add all sampling events from complete event log created and contributed by Courtney Ewart (UCSB); (added by cchandler) 071030: extract WB0409 events from merged E2 cruise log Related information: 070227: Courtney Ewart (UCSB) contributed a merged CTD map for OC404-1 and WB0409 that may help to determine relative CTD station locations (PDF file of 3 maps) DMO note: The WB0409 cruise is also called EDDIES Transect #1 or EDT1 (EDDIES Transects 1 and 2 were done in 2004, 3 and 4 in 2005) The dist_EC (distance from eddy center, ADCP eddy center trajectories) was calculated by Valery Kosnyrev (WHOI).</p>

WB0413

Website	https://www.bco-dmo.org/deployment/57960
Platform	R/V Weatherbird II
Start Date	2004-08-02
End Date	2004-08-11
Description	<p>EDT2 2004 Transect 2 cruise Funded by: NSF OCE-0241310</p> <p>Methods & Sampling PI: Nick Bates (Chief Scientist) of: Bermuda Biological Station for Research (BBSR) dataset: Cruise sampling event log dates: 02 August 2004 to 11 August 2004 location: N: 31.817 S: 30.331 W: -66.406 E: -64.154 project/cruise: EDDIES/WB0413 2004 Transect 2 (EDT2) platform: R/V Weatherbird II Methodology: processing notes are available with the full merged version Change history: 051220: create merged cruise log from OC404-4 and WB0413 CTD event logs 060310: add date and time fields (cchandler, OCB DMO) 070227: add all sampling events from complete event log created and contributed by Courtney Ewart (UCSB); (added by cchandler) 071030: extract WB0413 events from merged E1 cruise log DMO note: The WB0413 cruise is also called EDDIES Transect #2 or EDT2 (EDDIES Transects 1 and 2 were done in 2004, 3 and 4 in 2005) The dist_EC (distance from eddy center, ADCP eddy center trajectories) was calculated by Valery Kosnyrev (WHOI).</p>

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Project Information

Eddies Dynamics, Mixing, Export, and Species composition (EDDIES)

Website: http://science.whoi.edu/users/olga/eddies/EDDIES_Project.html

Coverage: Sargasso Sea

The original title of this project from the NSF award is: Collaborative Research: Impacts of Eddies and Mixing on

Plankton Community Structure and Biogeochemical Cycling in the Sargasso Sea".

Prior results have documented eddy-driven transport of nutrients into the euphotic zone and the associated accumulation of chlorophyll. However, several key aspects of mesoscale upwelling events remain unresolved by the extant database, including: (1) phytoplankton physiological response, (2) changes in community structure, (3) impact on export out of the euphotic zone, (4) rates of mixing between the surface mixed layer and the base of the euphotic zone, and (5) implications for biogeochemistry and differential cycling of carbon and associated bioactive elements. This leads to the following hypotheses concerning the complex, non-linear biological regulation of elemental cycling in the ocean:

H1: Eddy-induced upwelling, in combination with diapycnal mixing in the upper ocean, introduces new nutrients into the euphotic zone.

H2: The increase in inorganic nutrients stimulates a physiological response within the phytoplankton community.

H3: Differing physiological responses of the various species bring about a shift in community structure.

H4: Changes in community structure lead to increases in export from, and changes in biogeochemical cycling within, the upper ocean.

Publications

Andrews, J.E., Hartin, C., and Buesseler, K.O.. "7Be Analyses in Seawater by Low Background Gamma-Spectroscopy," *Journal of Radioanalytical and Nuclear Chemistry*, v.277, 2008, p. 253.

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Benitez-Nelson, C.R. and McGillicuddy, D.J.. "Mesoscale Physical-Biological-Biogeochemical Linkages in the Open Ocean: An Introduction to the Results of the E-Flux and EDDIES Programs.," *Deep Sea Research II*, v.55, 2008, p. 1133.

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Bibby, T.S., Gorbunov, M.Y., Wyman, K.W., Falkowski, P.G.. "Photosynthetic community responses to upwelling in mesoscale eddies in the subtropical North Atlantic and Pacific Oceans," *Deep-Sea Research Part II: Topical Studies in Oceanography*, v.55, 2008, p. 1310.

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Carlson, C.A., del Giorgio, P., Herdl, G.. "Microbes and the dissipation of energy and respiration: From cells to ecosystems," *Oceanography*, v.20, 2007, p. 89.

Davis, C.S., and McGillicuddy, D.J.. "Transatlantic Abundance of the N₂-Fixing Colonial Cyanobacterium *Trichodesmium*," *Science*, v.312, 2006, p. 1517.

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Ewart, C.S., Meyers, M.K., Wallner, E., McGillicuddy, D.J., Carlson, C.A.. "Microbial Dynamics in Cyclonic and Anticyclonic Mode-Water Eddies in the Northwestern Sargasso Sea," *Deep-Sea Research II*, v.55, 2008, p. 1334.

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Jenkins, W.J., McGillicuddy, D.J., and Lott III, D.E.. "The Distributions of, and Relationship Between ^3He and Nitrate in Eddies," Deep Sea Research II, v.55, 2008, p. 1389.

Jenkins, W.J., McGillicuddy, D.J., Lott III, D.E.. "The Distributions of, and Relationship Between ^3He and Nitrate in Eddies," Deep-Sea Research II, v.55, 2008, p. 1389.

Ledwell, J.R., McGillicuddy, D.J., and Anderson, L.A.. "Nutrient Flux into an Intense Deep Chlorophyll Layer in a Mode-water Eddy.," Deep Sea Research II, v.55, 2008, p. 1139.

Ledwell, J.R., McGillicuddy, D.J., Anderson, L.A.. "Nutrient Flux into an Intense Deep Chlorophyll Layer in a Mode-water Eddy," Deep-Sea Research II, v.55, 2008, p. 1139.

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McGillicuddy, D.J., Ledwell, J.R., and Anderson, L.A.. "Response to Comment on "Eddy/Wind Interactions Stimulate Extraordinary Mid-Ocean Plankton Bloom".," Science, v.320, 2008.

McGillicuddy, D.J., Ledwell, J.R., Anderson, L.A.. "Response to Comment on "Eddy/Wind Interactions Stimulate Extraordinary Mid-Ocean Plankton Bloom",," Science, v.320, 2008.

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Program Information

Ocean Carbon and Biogeochemistry (OCB)

Website: <http://us-ocb.org/>

Coverage: Global

The Ocean Carbon and Biogeochemistry (OCB) program focuses on the ocean's role as a component of the global Earth system, bringing together research in geochemistry, ocean physics, and ecology that inform on and advance our understanding of ocean biogeochemistry. The overall program goals are to promote, plan, and coordinate collaborative, multidisciplinary research opportunities within the U.S. research community and with international partners. Important OCB-related activities currently include: the Ocean Carbon and Climate Change (OCCC) and the North American Carbon Program (NACP); U.S. contributions to IMBER, SOLAS, CARBOOCEAN; and numerous U.S. single-investigator and medium-size research projects funded by U.S. federal agencies including NASA, NOAA, and NSF.

The scientific mission of OCB is to study the evolving role of the ocean in the global carbon cycle, in the face of

environmental variability and change through studies of marine biogeochemical cycles and associated ecosystems.

The overarching OCB science themes include improved understanding and prediction of: 1) oceanic uptake and release of atmospheric CO₂ and other greenhouse gases and 2) environmental sensitivities of biogeochemical cycles, marine ecosystems, and interactions between the two.

The OCB Research Priorities (updated January 2012) include: ocean acidification; terrestrial/coastal carbon fluxes and exchanges; climate sensitivities of and change in ecosystem structure and associated impacts on biogeochemical cycles; mesopelagic ecological and biogeochemical interactions; benthic-pelagic feedbacks on biogeochemical cycles; ocean carbon uptake and storage; and expanding low-oxygen conditions in the coastal and open oceans.

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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-0241310

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