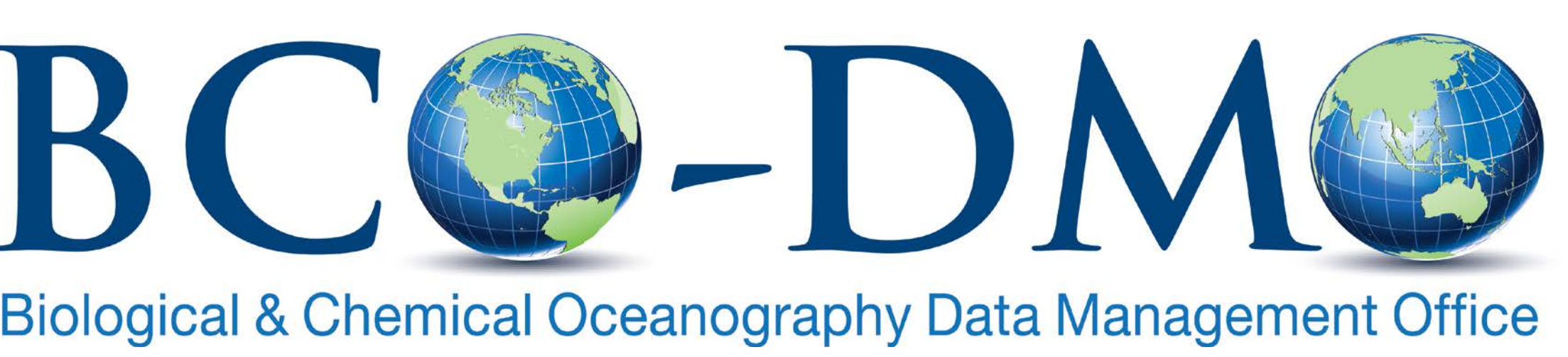


BCO-DMO & GEOLINK: IMPROVING DATA DISCOVERY AND ACCESS FOR OCEAN SCIENCE RESEARCH RESULTS

Cynthia L. Chandler, Adam Shepherd, Peter H. Wiebe, Danie B. Kinkade, Molly D. Allison, Nancy J. Copley, Stephen R. Gegg, David M. Glover, Robert C. Groman, Shannon M. Rauch (BCO-DMO, Woods Hole Oceanographic Institution (WHOI)), Robert Arko, Suzanne Carbotte, Kerstin Lehnert and Peng Ji (Lamont-Doherty Earth Observatory (LDEO)), Douglas Fils (Consortium for Ocean Leadership), Lisa Raymond and Audrey Mickel (Marine Biological Laboratory/Woods Hole Oceanographic Institution Library (MBLWHOI Library)), Thomas Narock (Marymount University), Pascal Hitzler, Michelle Cheatham, and Adila Alfa Krisnadhi (Wright State University), Timothy Finin (University of Maryland Baltimore County), Krzysztof Janowicz, Matthew Jones, Mark Schildhauer, Yingjie Hu (University of California Santa Barbara (UCSB))



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Established in late 2006, the Biological and Chemical Oceanography Office (BCO-DMO) is funded by the NSF Division of Ocean Sciences (OCE) and Division of Polar Programs (PLR) to improve data availability and discovery, and to enable subsequent data integration and accurate use. BCO-DMO staff members work closely with investigators to ensure that data generated during research funded by those NSF programs are documented, stored, freely available, and protected long after the research is completed. Efforts at BCO-DMO focus on comprehensive data management activities that span the full data life cycle from “proposal through preservation”, ultimately ensuring that data resulting from marine research projects are archived at the appropriate US National Data Center.

In addition to managing and serving ocean biogeochemistry and marine ecosystem data from NSF OCE and PLR funded research projects, BCO-DMO staff members work on several synergistic research projects, the results of which will enhance BCO-DMO data discoverability and access. BCO-DMO is one of the partners in GeoLink, an NSF funded EarthCube Building Block project. Using extensible GeoLink methodologies BCO-DMO has integrated Semantic Web technologies, including Linked Open Data and Ontology Design Patterns, to enhance the BCO-DMO data system architecture and to connect BCO-DMO managed data with complementary data and resources in other repositories. BCO-DMO endeavors to be one node in a comprehensive cyberinfrastructure for Geoscience that enables open, transparent, interoperable access to data and information.




Photo by Rob Hagg 2011





Biological & Chemical Oceanography Data Management Office

LINKS to BCO-DMO for final, processed, marine ecosystem research data, and BCO-DMO harvests related data from the GeoLink knowledge hub



HOME DATA RESOURCES ABOUT US

DATABASE

Programs	33
Projects	620
Deployments	2118
Datasets	7521
Instruments	375
Parameters	1350
People	1814
Affiliations	433
Funding	68
Awards	1117

Project: Eddies Dynamics, Mixing, Export, and Species composition

Acronym/Short Name: EDDIES
Project URL: Project Web Site
Start Date: 2004-06
End Date: 2005-09
Geolocation: Sargasso Sea

Description

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.

Publications

McGillicuddy, D.J., et al. "Eddy/Wind Interactions Stimulate Extraordinary Mid-Ocean Plankton Blooms," Science, v.316, 2007, p. 1074


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.

Project Coordinators

Person	Roles	Affiliation
Dr Dennis J. McGillicuddy	Lead Principal Investigator, Contact	Woods Hole Oceanographic Institution (WHOI)
Cynthia L. Chandler	BCO-DMO Data Manager	Woods Hole Oceanographic Institution (WHOI BCO-DMO)

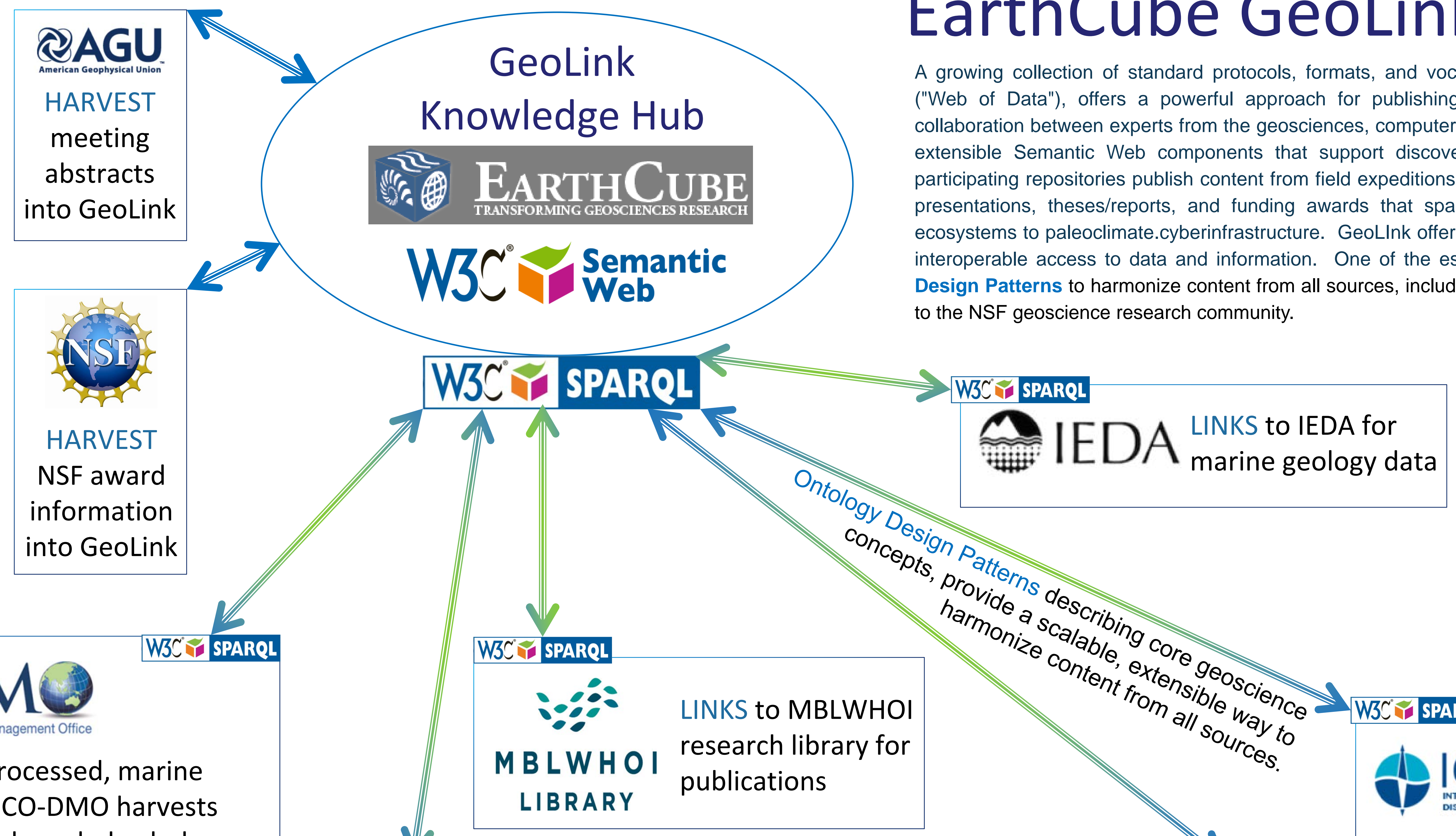
GEOSPATIAL ACCESS



CONTRIBUTE DATA

Getting started

- How to Guide
- FAQs






UNIVERSITY NATIONAL OCEANOGRAPHIC LABORATORY SYSTEM

Rolling Deck to Repository (R2R)

rvdata.us



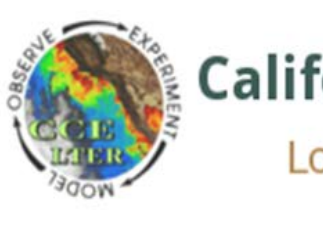


Data Observation Network for Earth


LINKS to DataONE to exchange LTER site data

The Long Term Ecological Research Network


Six marine and coastal LTER sites are funded by the NSF Division of Ocean Sciences.




California Current Ecosystem
Long Term Ecological Research




MBL Plum Island Ecosystems LTER
Member of the U.S. Long Term Ecological Research Network




MOOREA CORAL REEF LTER



Santa Barbara Coastal
Long Term Ecological Research



Palmer Station Antarctica
Long Term Ecological Research



Georgia Coastal Ecosystems LTER
Member of the NSF Long Term Ecological Research Network