3D data assimilative modeling results for the subtropical N. Pacific region from 1958-2006 (C-MORE project)

Website: https://www.bco-dmo.org/dataset/3430
Data Type: model results
Version: 14 February 2011
Version Date: 2011-02-14

Project
» Center for Microbial Oceanography: Research and Education (C-MORE)

Contributors	Affiliation	Role
Doney, Scott	Woods Hole Oceanographic Institution (WHOI)	Principal Investigator
Lima, Ivan D.	Woods Hole Oceanographic Institution (WHOI)	Contact
Nahorniak, Jasmine	Oregon State University (OSU-CEOAS)	Data Manager
Gegg, Stephen R.	Woods Hole Oceanographic Institution (WHOI BCO-DMO)	BCO-DMO Data Manager

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Dataset Description

Links to NetCDF files of 3D data assimilative modeling results (3-D simulations hindcast over time) for the subtropical N. Pacific; Each link downloads the data file (NetCDF format) for that year. Results were added to BCO-DMO: Feb 14 2011.

Methods & Sampling

CBGC Home

Data Processing Description

CBGC Home

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Data Files

File
3d_simulations.csv (Comma Separated Values (.csv), 5.41 KB) MD5:8766fad08777c6ac8f40a6963f3d993c Primary data file for dataset ID 3430

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Parameters

Parameters for this dataset have not yet been identified

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Deployments

lab_WHOI_CBG_3d_model

Website	https://www.bco-dmo.org/deployment/58645
Platform	WHOI
Report	http://www.whoi.edu/sbl/liteSite.do?litesiteid=23412&articleId=35632
Start Date	1958-01-01
End Date	2006-12-31
Description	C-MORE 3d model simulations by the */ Computational Biogeochemistry Group at Woods Hole Oceanographic Institution, Woods Hole, MA. USA. CBGC Home Note: Text location is location of the modeling results. Locations list is the Clark Laboratory, WHOI, Woods Hole, MA srg/17Feb2011

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Project Information

Center for Microbial Oceanography: Research and Education (C-MORE)

Website: http://cmore.soest.hawaii.edu/

Coverage: North Pacific Subtropical Gyre (large region around 22 45 N, 158 W)

Project summary

The **Center for Microbial Oceanography: Research and Education** (C-MORE) is a recently established (August 2006; NSF award: EF-0424599) NSF-sponsored Science and Technology Center designed to facilitate a more comprehensive understanding of the diverse assemblages of microorganisms in the sea, ranging from the genetic basis of marine microbial biogeochemistry including the metabolic regulation and environmental controls of gene expression, to the processes that underpin the fluxes of carbon, related bioelements and energy in the marine environment. Stated holistically, C-MORE's primary mission is: *Linking Genomes to Biomes*.

We believe that the time is right to address several major, long-standing questions in microbial oceanography. Recent advances in the application of molecular techniques have provided an unprecedented view of the structure, diversity and possible function of sea microbes. By combining these and other novel approaches with more well-established techniques in microbiology, oceanography and ecology, it may be possible to develop a meaningful predictive understanding of the ocean with respect to energy transduction, carbon sequestration, bioelement cycling and the probable response of marine ecosystems to global environmental variability and climate change. The strength of C-MORE resides in the synergy created by bringing together

experts who traditionally have not worked together and this, in turn, will facilitate the creation and dissemination of new knowledge on the role of marine microbes in global habitability.

The new Center will design and conduct novel research, broker partnerships, increase diversity of human resources, implement education and outreach programs, and utilize comprehensive information about microbial life in the sea. The Center will bring together teams of scientists, educators and community members who otherwise do not have an opportunity to communicate, collaborate or design creative solutions to long-term ecosystem scale problems. The Center's research will be organized around four interconnected themes:

- (Theme I) microbial biodiversity,
- (Theme II) metabolism and C-N-P-energy flow,
- (Theme III) remote and continuous sensing and links to climate variability, and
- (Theme IV) ecosystem modeling, simulation and prediction.

Each theme will have a leader to help coordinate the research programs and to facilitate interactions among the other related themes. The education programs will focus on pre-college curriculum enhancements, in service teacher training and formal undergraduate/graduate and post-doctoral programs to prepare the next generation of microbial oceanographers. The Center will establish and maintain creative outreach programs to help diffuse the new knowledge gained into society at large including policymakers. The Center's activities will be dispersed among five partner institutions:

- Massachusetts Institute of Technology,
- Woods Hole Oceanographic Institution,
- Monterey Bay Aquarium Research Institute,
- University of California at Santa Cruz and
- Oregon State University

and will be coordinated at the University of Hawaii at Manoa.

Related Files:

Strategic plan (PDF file)

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Funding

Funding Source	Award
NSF Division of Biological Infrastructure (NSF DBI)	DBI-0424599

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