

Stations from multiple HOE-DYLAN cruises from May to October 2012 (C-MORE project)

Website: <https://www.bco-dmo.org/dataset/4052>

Version: 26 September 2013

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Project

» [Center for Microbial Oceanography: Research and Education](#) (C-MORE)

Contributors	Affiliation	Role
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Dataset Description

In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology.

[Hawaii Ocean Experiment - Dynamics of Light and Nutrients \(HOE-DYLAN\)](#)

Summary Table

Deployment	Dataset	PI
HOE-DYLAN I	stations_01	Tara Clemente
HOE-DYLAN II	stations_02	Susan Curless
HOE-DYLAN III	stations_03	Matt Church
HOE-DYLAN IV	stations_04	Susan Curless
HOE-DYLAN V	stations_05	Sam Wilson
HOE-DYLAN VI	stations_06	F. Santiago-Mandujano
HOE-DYLAN VII	stations_07	Sonya Dyhrman
HOE-DYLAN VIII	stations_08	Susan Curless
HOE-DYLAN IX	stations_09	Sam Wilson
HOE-DYLAN X	stations_10	F. Santiago-Mandujano
HOE-DYLAN XI	stations_11	Tara Clemente

Location:

Oligotrophic waters 100 miles north of Oahu, Hawaii, near Station ALOHA (22.75 N, 158.00 W)

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Parameters

Parameter	Description	Units
date	date	YYYYMMDD
time	time of day (GMT)	HHMM
sta	station number	dimensionless
cast	cast number	dimensionless
lat	Station Latitude; South is negative	decimal degrees
lon	Station Longitude; West is negative	decimal degrees
depth_w	water depth	meters

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Deployments

KOK1204

Website	https://www.bco-dmo.org/deployment/59097
Platform	R/V Ka`imikai-O-Kanaloa
Start Date	2012-05-21
End Date	2012-05-23
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KOK1205

Website	https://www.bco-dmo.org/deployment/59098
Platform	R/V Ka`imikai-O-Kanaloa
Start Date	2012-05-29
End Date	2012-06-02
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1211

Website	https://www.bco-dmo.org/deployment/59099
Platform	R/V Kilo Moana
Start Date	2012-06-11
End Date	2012-06-20
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1213

Website	https://www.bco-dmo.org/deployment/59100
Platform	R/V Kilo Moana
Start Date	2012-06-25
End Date	2012-06-29
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1215

Website	https://www.bco-dmo.org/deployment/59101
Platform	R/V Kilo Moana
Start Date	2012-07-08
End Date	2012-07-28
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1216

Website	https://www.bco-dmo.org/deployment/59102
Platform	R/V Kilo Moana
Start Date	2012-07-30
End Date	2012-08-03
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1217

Website	https://www.bco-dmo.org/deployment/59103
Platform	R/V Kilo Moana
Start Date	2012-08-05
End Date	2012-08-14
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1218

Website	https://www.bco-dmo.org/deployment/59104
Platform	R/V Kilo Moana
Start Date	2012-08-16
End Date	2012-08-20
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1219

Website	https://www.bco-dmo.org/deployment/59105
Platform	R/V Kilo Moana
Start Date	2012-08-22
End Date	2012-09-11
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1220

Website	https://www.bco-dmo.org/deployment/59106
Platform	R/V Kilo Moana
Start Date	2012-09-13
End Date	2012-09-17
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

KM1222

Website	https://www.bco-dmo.org/deployment/59107
Platform	R/V Kilo Moana
Start Date	2012-10-01
End Date	2012-10-04
Description	In the summer of 2012, C-MORE conducted a "continuous" long-term field experiment at Station ALOHA to observe and interpret temporal variability in microbial processes, and the consequences for ecological dynamics and biogeochemical cycling. Special focus was given to time-space coupling because proper scale sampling of the marine environment is an imperative, but generally neglected aspect of marine microbiology. Hawaii Ocean Experiment - Dynamics of Light and Nutrients (HOE-DYLAN)

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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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