

Ocean Carbon & Biogeochemistry (OCB) Summer Workshop
Samuel H. Scripps Auditorium, Scripps Seaside Forum
Scripps Institution of Oceanography
July 19-22, 2010

Monday July 19, 2010

07:30-08:30 *Continental Breakfast*
Hang posters

08:30 **Introductory remarks and announcements** (Scott Doney, Woods Hole Oceanographic Institution)

08:45 **Agency updates and community questions and discussion**

- **National Science Foundation (NSF)** (Dave Garrison, Don Rice, Phil Taylor)
- **National Aeronautics and Space Administration (NASA)** (Paula Bontempi)
- **National Oceanic and Atmospheric Administration (NOAA)** (Chris Sabine)

09:45 **Plenary Session 1. The Arctic** - Chairs: Walker Smith (Virginia Institute of Marine Science), Jeremy Mathis (University of Alaska, Fairbanks)

09:45 Recent changes in sea surface pCO₂ in the western Arctic Ocean: The consequence of sea-ice melt (Wei-Jun Cai, University of Georgia)

10:30 *Break*

11:00 Aragonite undersaturation in the western Arctic Ocean (Michiyo Yamamoto-Kawai, Fisheries and Oceans Canada)

11:45 Seasonal changes in primary production, phytoplankton community composition, and export during the Bering Sea Ecosystem Study (Bradley Moran, University of Rhode Island)

12:30 *Lunch*

14:00 Evidence of systemic seasonal aragonite undersaturation in the continental shelf seas of Alaska (Jeremy Mathis, University of Alaska, Fairbanks)

14:45 Arctic plenary questions and community discussion

15:30 **U.S. Carbon Cycle Science Plan update** (Chris Sabine, NOAA Pacific Marine Environmental Laboratory)

16:00 **Student introductions:** Brendan Rae Carter (Scripps Institution of Oceanography), John Radich (Scripps Institution of Oceanography), Hugh Doyle (Scripps Institution of Oceanography)

16:30-18:30 **Poster session and welcome reception**

Tuesday July 20, 2010

07:30-08:30 *Continental Breakfast*
Hang posters

08:30 **Natural coastal carbon sinks: Highlights of the IUCN report (available at <http://www.whoi.edu/page.do?pid=41275>) and community discussion of OCB's existing and potential roles in natural coastal ecosystems research** (Chuck Hopkinson, University of Georgia)

09:15 **Plenary Session 2. Low-Oxygen Regions** - Chairs: Kendra Daly (University of South Florida), Lisa Levin (Scripps Institution of Oceanography)

09:15 The specter of expanding OMZs:

Part 1. Habitat compression and the biological pump (Kendra Daly, University of South Florida)

Part 2. Benthic and breathless in the Indo-Pacific (Lisa Levin, Scripps Institution of Oceanography)

10:00 *Break*

10:30 Eutrophication, coastal hypoxia, carbon, and climate (Nancy Rabalais, Louisiana Universities Marine Consortium)

11:15 The evolving story of microbial nitrogen cycling processes in low oxygen zones (Jonathan Zehr, University of California, Santa Cruz)

12:00 *Lunch*

13:30 Modeling low-oxygen regions (Andreas Schmittner, Oregon State University)

14:15 Low-oxygen plenary questions and community discussion

15:00 **NACP/OCB Coastal Synthesis Activities: Regional updates** (Paula Coble, University of South Florida)

16:00 **Student introductions:** Emily Bockmon (Scripps Institution of Oceanography), Jordan Landers (Columbia University), Ernesto Molina (University of Tasmania), Jason Waters (University of Miami)

16:30 **Poster session**

18:00 *Dinner on your own*

Wednesday July 21, 2010

07:30-08:30 *Continental Breakfast*
Hang posters

08:30 **Synopsis and community discussion of NSF-sponsored Ocean Global Change and Evolution workshop** (David Hutchins, University of Southern California)

09:15 **Update on U.S. and international ocean acidification activities** (Sarah Cooley, Woods Hole Oceanographic Institution)

09:45 **Plenary Session 3. Benthic-Pelagic Interactions** - Chairs: Henry Ruhl (National Oceanography Centre), Cynthia Pilskaln (University of Massachusetts, Dartmouth)

09:45 Molecular approaches to marine microbial ecology and biogeochemical cycling of nitrogen and carbon (Amal Jayakumar, Princeton University)

10:30 *Break*

11:00 Benthic-pelagic coupling on the Oregon shelf during summer hypoxia: Insights from eddy correlation measurements (Clare Reimers, Oregon State University)

11:45 A look on the brown side of life: Understanding biogeochemical cycling in marine benthic food webs using inverse modeling and stable isotope labeling (Dick van Oevelen, Nederlands Instituut voor Ecologie)

12:30 *Lunch*

14:00 Benthic nepheloid layer dynamics and potential role in carbon cycling on the continental margin (Cynthia Pilskaln, University of Massachusetts, Dartmouth)

14:45 Benthic-pelagic plenary questions and community discussion

15:30 **Gulf of Mexico oil spill update** (Steve Lohrenz, University of Southern Mississippi)

16:00 **Student introductions:** Iuri Herzfeld (University of Hawaii), Samantha Siedlecki (University of Chicago), Ryan Woosley (University of Miami)

16:30 **Poster session**

18:00 *Conference Dinner*

Thursday July 22, 2010

07:30-08:30 *Continental Breakfast*

08:30 OCB Partner Program Updates (10 minutes each)

- **Integrated Marine Biogeochemistry and Ecosystem Research (IMBER)** (Raleigh Hood, University of Maryland)
- **North American Carbon Program (NACP)** (Peter Griffith, NASA)
- **GEOTRACES** (Bob Anderson, Lamont-Doherty Earth Observatory)
- **International Ocean Carbon Coordination Project (IOCCP)** (Kathy Tedesco, United Nations Educational, Scientific and Cultural Organization)
- **Surface Ocean Lower Atmosphere Study (SOLAS)** (Francisco Chavez, Monterey Bay Aquarium Research Institute)
- **U.S. Climate Variability and Predictability (CLIVAR)** (David Legler, U.S. CLIVAR Office)

09:30 **OCB community questions and discussion on cross-program linkages**

10:15 *Break*

10:45 **Synopsis of the Asilomar International Conference on Climate Intervention Technologies (<http://www.climateresponsefund.org/>) and OCB community discussion** (Francisco Chavez, Monterey Bay Aquarium Research Institute)

11:45 **Closing remarks and wrap-up** (Scott Doney, Woods Hole Oceanographic Institution)

12:00 *Adjourn and Lunch*

12:30 **OCB Scientific Steering Committee (SSC) meeting:** OCB SSC members and agency representatives please bring your lunches to the Ted Scripps Room