

Ocean Carbon and Biogeochemistry (OCB) Summer Workshop
Woods Hole Oceanographic Institution
July 21-24, 2008

Monday July 21, 2008

07:30-08:30 Continental Breakfast
Hang posters

08:30 Introduction

08:30 *Scott Doney (Woods Hole Oceanographic Institution):* OCB progress and new directions

08:45 Agency perspectives on OCB

08:45 *Don Rice and Phil Taylor (NSF):* Opportunities at NSF

08:55 *Paula Bontempi (NASA):* OCB involvement in NASA field campaign planning

09:05 *Mete Uz (NOAA):* Opportunities at NOAA

09:15 Data Management

09:15 *Cyndy Chandler (Woods Hole Oceanographic Institution):* Data management at the Biological and Chemical Oceanography Data Management Office (BCO-DMO)

09:30 Theme I Plenary Session: Climate sensitivity of ecosystem structure and associated impacts on biogeochemical cycles

Chairs: *David Hutchins (University of Southern California) & Henry Ruhl (National Oceanography Centre, Southampton)*
(30 min. presentations followed by 10 min. discussion)

09:30 *Debora Iglesias-Rodriguez (National Oceanography Centre, Southampton):* Recent research on the response of phytoplankton to elevated CO₂

10:10 Break (30 minutes)

10:40 *Michael Landry (Scripps Institution of Oceanography):* California Current ecosystem responses to climate variation (mac)

11:20 *Mark Altabet (University of Massachusetts, Dartmouth):* Climate change forcing of intense O₂ minimum zones (mac)

12:00 Lunch

13:15 *Richard Lampitt (National Oceanography Centre, Southampton):* Climate change and the deep, deep ocean: Links, effects and feedback (lunch, talk with Matt B about webcast)

14:00 Theme I Breakout Sessions

- Breakout 1. Experimental approaches: Challenges vs. solutions (*Hutchins*)
- Breakout 2. Pelagic-benthic coupling and feedbacks on biogeochemical cycles (*Ruhl*)
- Breakout 3. Observing systems (*Kenneth Johnson*)

15:00 Break (15 minutes, then back into breakouts to finish up)

16:00-19:00 Poster Session and Reception (please remove posters at end of session)

Tuesday July 22, 2008

07:30-08:30 Continental Breakfast
Hang posters

08:30 Theme I Breakout Group Reports

- Breakout 1 (*Hutchins*)
- Breakout 2 (*Ruhl*)
- Breakout 3 (*Johnson*)

09:00 Theme II Plenary Session: Carbon uptake and storage

Chairs: *Rik Wanninkhof (NOAA/AOML) & Curtis Deutsch (University of California, Los Angeles)*
(30 min. presentations followed by 10 min. discussion)

09:00 *Takamitsu Ito (Colorado State University)*: Trends and variability of Southern Ocean carbon fluxes

09:40 *Samar Khatiwala (Lamont-Doherty Earth Observatory, Columbia University)*: Global ocean uptake and storage of anthropogenic carbon estimated using transit-time distributions

10:20 Break (30 minutes)

10:50 *Wei-Jun Cai (University of Georgia)*: Terrestrial carbon and nutrient fluxes and the biogeochemical responses in the Mississippi River plume and northern Gulf of Mexico

11:30 *Galen McKinley (University of Wisconsin, Madison)*: Carbon cycle trends in the northern oceans

12:10 Lunch

13:30 *Mary Jane Perry (University of Maine)*: Autonomous measurements of carbon flux in the North Atlantic Bloom (~61°N, 25°W): Early results from the spring NAB08 experiment

14:15 *Jorge Sarmiento (Princeton University)*: Overview of global carbon cycle constraints

15:00 Theme II Breakout Sessions

Breakout 1. How is climate change affecting the Southern Ocean? (*Deutsch*)

Breakout 2. OCB involvement in NACP coastal ocean interim synthesis activities (*Coble*)

15:30 Break (15 minutes, then back into plenary session to finish up)

16:30-18:30 Poster Session (please remove posters at end of session)

18:30 Dinner on your own

Wednesday July 23, 2008

07:30-08:30 Continental Breakfast
Hang posters

08:30 Theme II Breakout Group Reports

Breakout 1 (*Deutsch*)

Breakout 2 (*Coble*)

09:00 *Shelby Walker (NSF)*: How does OCB science fit into the Ocean Observatories Initiative?

09:30 Theme III Plenary Session: Temporal trends in ecosystem variability

Chairs: *Craig Carlson (University of California, Santa Barbara)* & *Marjorie Friedrichs (Virginia Institute of Marine Science)*

(30 min. presentations followed by 10 min. discussion)

09:30 *Debbie Steinberg (Virginia Institute of Marine Science)*: Long-Term Research and Time-Series Observations: What have we learned?

10:10 Break (30 minutes)

10:40 *Kendra Daly (University of South Florida)*: GLOBEC: Temporal trends in ecosystem variability

11:20 *David Black (Stony Brook University)*: Linkages between climate variability and foraminifera sedimentation in Santa Barbara and Cariaco Basins

12:00 Lunch

13:15 *Watson Gregg (NASA)*: Incorporating satellite time-series data into modeling

14:00 Theme III Breakout Sessions

Breakout 1. Future biogeochemical time-series needs and new directions
(*Carlson*)

Breakout 2. Combining models with satellite data and other time-series observations
(*Friedrichs*)

Breakout 3. How can the OCB community best use OOI assets and data?
(*Daly*)

15:15 Break (15 minutes, then back into breakouts to finish up)

16:30-18:00 Poster Session (please remove posters at end of session)

18:30 Conference Dinner, Fenno Patio

Thursday July 24, 2008

07:30-08:30 Continental Breakfast

08:30 Theme III Breakout Group Reports

Breakout 1 (*Carlson*)

Breakout 2 (*Friedrichs*)

Breakout 3 (*Daly*)

09:30 Plenary Session: Current and future OCB pursuits

(10 min. talks followed by open discussion)

09:30 *Jorge Sarmiento (Princeton University)*: Surprises in the anthropogenic carbon budget

10:00 Break (30 minutes)

10:30 *Michael Bender (Princeton University)*: Underway analyses for biogeochemistry and ecology

11:00 *Chris Langdon (University of Miami)*: Ocean acidification scoping workshop and research directions

11:30 *Paula Coble (University of South Florida)*: Gulf of Mexico scoping workshop and research directions

12:00 Adjourn and Lunch