

Ocean Carbon and Biogeochemistry (OCB) Summer Workshop
Woods Hole Oceanographic Institution, Clark 507
July 20-23, 2009

Monday July 20, 2009

07:30-08:30 Continental Breakfast
Hang posters

08:30 Introduction (*Scott Doney, WHOI*)

08:40 Data Management for OCB Projects (*Cyndy Chandler, BCO-DMO*)

09:00 Session 1. The Next U.S. Carbon Cycle Science Plan
Chair: *Chris Sabine (NOAA/PMEL)*

09:00 Overview of next CCSP (*Chris Sabine, NOAA/PMEL*)

09:20 How NACP and the terrestrial community see themselves fitting into the new science plan (*Ken Davis, Penn State*)

09:40 Social sciences and decision support in the new science plan (*Lisa Dilling, U Colorado*)

10:00 Break

10:30 Panel introduction and opening remarks (*Paula Bontempi, Bob Anderson, Galen McKinley, Andy Jacobson, Ken Davis, Lisa Dilling*) (*Chris Sabine, moderator*)

11:00 Open panel discussion (*Chris Sabine, moderator*)

12:00 Lunch

13:30 Session 2. Ocean Acidification: Frontiers in Understanding Physiological and Ecological Responses
Chair: *Joan Kleypas (NCAR)*

13:30 Global change functional genomics in the study of ocean acidification (*Gretchen Hofmann, UCSB*)

14:00 Changing nutrient cycles and ocean biology in a high-CO₂ world (*David Hutchins, USC*)

14:30 Questions and open discussion

15:00 Break

15:30 Update on U.S. ocean acidification activities (*Joan Kleypas, NCAR*)

- 15:35 Addressing ecological thresholds in ocean acidification research (*Cisco Werner, Rutgers*)
- 16:05 Open discussion
- 16:30 Poster session and reception (hors d'oeuvres)
- 19:00 Public viewing of ocean acidification documentary "A Sea Change" followed by Q&A session; meet filmmakers Barbara Ettinger and Sven Huseby (MBL Lillie Auditorium, Woods Hole Village, **BRING OCB NAME TAG FOR FREE ADMISSION, OTHERWISE YOU WILL HAVE TO PAY AT DOOR**)

Tuesday July 21, 2009

07:30-08:30 Continental Breakfast
Hang posters

08:30 Session 3. Observing Systems and Time-Series **Chairs: *Deborah Bronk (VIMS), Matthew Church (U Hawaii)***

- 08:30 What Repeat Hydrography can tell us about decadal-scale changes in the ocean carbon system (*Richard Feely, NOAA/PMEL*)
- 09:00 OOI - Design and capabilities to address OCB research (*Susan Banahan, Consortium for Ocean Leadership*)
- 09:30 Potential for global-level observations of ocean biogeochemistry with gliders (*Oscar Schofield, Rutgers*)
- 10:00 Questions for speakers and open discussion
- 10:30 Break
- 11:00 OCB Floats and Gliders Scoping Workshop report (new OCB directions/outcomes) (*Ken Johnson, MBARI*)
- 11:30 Open discussion
- 12:30 Lunch
- ### **14:00 Session 4. NACP/OCB Coastal Interim Synthesis Activities** **Chairs: *Paula Coble (USF), Simone Alin (NOAA/PMEL)***
- 14:00 Overview of coastal synthesis activities (*Coble/Alin*)
- 14:15 Terrestrial-marine-atmospheric linkages in the Gulf of Mexico (*Scott Denning*) (30-min. remote talk followed by 15 minutes for questions and open discussion)

- 15:00 Coastal carbon budgets along U.S. east coast (*Ray Najjar, Penn State*) (20-min. talk followed by 10 minutes for questions)
- 15:30 Coastal carbon budgets in the Arctic and marginal seas (*Jeremy Mathis, U AK*) (20-min. talk followed by 10 minutes for questions)
- 16:00 Open discussion
- 16:30 Poster session
- 18:30 Conference dinner, Fenno Patio (Clark 5 if raining)

Wednesday July 22, 2009

07:30-08:30 Continental Breakfast
Hang posters

08:30 Session 5. The Future of OCB Research in the Southern Ocean Chairs: *Kendra Daly (USF), David Ho (U Hawaii)*

- 08:30 Introduction and summary of Southern Ocean Scoping Workshop (new OCB directions/outcomes) (*Kendra Daly, USF*)
- 09:15 Overview of Southern Ocean GasEx Project (*David Ho, U Hawaii*)
- 09:30 SO GasEx results and satellite techniques for determining Southern Ocean CO₂ sources/sinks (*Pete Strutton, OSU*)
- 10:00 Open discussion
- 10:30 Break
- 11:00 Southern Ocean particle fluxes (*Phoebe Lam, WHOI*)
- 11:30 Open discussion
- 12:30 Lunch

14:00 Session 6. Implementing Research at the Intersection of Ocean Chemistry and Biology Chairs: *Bob Anderson (LDEO), Kathy Barbeau (SIO)*

- 14:00 GEOTRACES overview talk (*Bob Anderson, LDEO*)
- 14:30 Current research in micronutrient-ecosystem interactions (*Kathy Barbeau, SIO*)
- 15:00 Open discussion and advocacy presentations: We encourage participants to make brief (~5 minute) presentations on relevant measurements, process studies or scientific themes they would like to publicize or advocate.

16:30 Poster session

17:30 Reception with Federal Agency Program Managers for students and postdocs only
(Carriage House)

Dinner on your own

Thursday July 23, 2009

07:30-08:30 Continental Breakfast

08:30 International Program Updates

IMBER (*Mike Roman*)

CARBOOCEAN (*Elizabeth Shadwick*)

IOCCP (*Kathy Tedesco*)

SOLAS (*Wade McGillis*)

09:10 Agency updates

NSF (*Don Rice, Dave Garrison, Phil Taylor, Roberta Marinelli*)

NASA (*Fred Lipschultz*)

NOAA (*Ken Mooney, Joel Levy*)

09:45 Session 7. The Next U.S. Carbon Cycle Science Plan Revisited

Chair: *Chris Sabine (NOAA/PMEL)*

09:45 Open Discussion (see discussion questions below):

- Based on the three overarching questions identified for the new plan, what are the priorities for ocean carbon research in the next decade?
- The new overarching questions place a much stronger emphasis on human dimensions. How will/should this affect the OCB community and how we conduct our science?
- What is an appropriate balance between basic carbon cycle research and research aimed at providing information for policy and decision support?

10:30 Break

11:00 Open discussion (continued)

11:50 Closing remarks and wrap-up (*Scott Doney, WHOI*)

12:00 Adjourn and Lunch

13:30 OCB Scientific Steering Committee (SSC) meeting, Clark 271 (*OCB SSC members and agency representatives only*)