interesting aspect of the composites for flood conditions shown in the right-hand side of Figure 2 is the apparent connection between the Midwest and points well to the south. When composites of soil moisture, rainfall, and evaporative sources are calculated for the month immediately prior to the top 10% of rainfall events across the Midwest, it is found that the anomalies within the red box are much weaker but the wet conditions to the south persist. This implies that there may be a predictive element to these floods that can be exploited.

Analysis of evaporative moisture sources from back trajectories suggests a link through the regional water cycle that connects far-flung regions. It is clear that large-scale floods such as those in the U.S. Midwest during 1993 and 2008 are part of an even larger-scale aberration in the water cycle that involves the atmosphere, the ocean, and the land across vast distances. The “Maya Express” brought vast amounts of tropical moisture northward in an anomalous atmospheric flow. This combined with antecedent wet surface conditions to cause the major floods of 1993 and 2008. The region of flooding is also a region identified in modeling studies as one of the most likely to experience significant feedbacks between land and atmosphere [Koster et al., 2004]. Additional study may pinpoint the mechanisms involved and further enhance the understanding and predictability of major flood events across the central United States.

**References**


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**MEETING**

**A U.S. Carbon Cycle Science Plan**

*First Meeting of the Carbon Cycle Science Working Group; Washington, D.C., 17–18 November 2008*

PAGES 102–103

The report “A U.S. carbon cycle science plan” (J. L. Sarmiento and S. C. Wofsy, U.S. Global Change Res. Program, Washington, D. C., 1999) outlined research priorities and promoted coordinated carbon cycle research across federal agencies for nearly a decade. Building on this framework and subsequent reports (available at http://www.carboncyclescience.gov/docs.php), the Carbon Cycle Science Working Group (CCSWG) was formed in 2008 to develop an updated strategy for the next decade. The recommendations of the CSSWG will go to agency managers who have collective responsibility for setting national carbon cycle science priorities and for sponsoring much of the carbon cycle research in the United States.

The first meeting of the CSSWG took place in November, with the overall goals of achieving consensus on the extent to which the 1999 plan should be updated, developing a list of overarching scientific questions to be addressed by the new plan, and identifying mechanisms for maximizing community input.

The meeting included presentations that focused on the history of the 1999 plan, the agencies’ perspective on carbon cycle science, the North American Carbon Program, the “State of the carbon cycle report” released in 2007 by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research, and strategies for fostering community involvement. Breakout sessions and group discussions focusing on the specific goals of the workshop made up the majority of the agenda.

Three overarching scientific questions were tentatively proposed by the working group for the new plan:

1. What processes and feedbacks or mechanisms control the dynamics of atmospheric carbon dioxide and methane, and how?
Thank you to the colleagues who supported my nomination and the Ocean Sciences section for selecting me for this year’s Early Career Award. I am so privileged to spend my days (and often nights) doing a job I love. One of the things I enjoy most about being in the interdisciplinary field of oceanography is working as part of a group of scientists whose strengths complement each other, bringing about ideas and results that would not have been possible without teamwork. I am lucky to collaborate with wonderful people who both challenge and inspire me. Special thanks to Whitlow Au, Van Holliday, Oscar Schofield, Margaret McManus, Tim Cowles, Mark Moline, William Gilly, Mark Benfield, Scott Heppell, and Ron Kastelein and each of their research groups. I would like to thank all of my colleagues in the College of Oceanic and Atmospheric Sciences at Oregon State University who continue every day to foster the culture of collaboration that is a tradition at OSU. Upon arriving in Corvallis 4 years ago, I had been in my new office for less than 2 hours when I was approached by a senior colleague who wanted to get me excited about an idea for a collaborative proposal. That doesn’t happen everywhere, and it is truly a gift. I also need to thank the collaborators who work with me most closely—my students—and in whose achievements I find the greatest satisfaction.

—KELLY BENOÎT-BIRD, Oregon State University, Corvallis

Kelly Benoît-Bird

ABOUT AGU

Benoît-Bird Receives 2008 Ocean Sciences Early Career Award

PAGES 103–104

Kelly Benoît-Bird received the 2008 Ocean Sciences Early Career Award at the 2008 AGU Fall Meeting Honors Ceremony, held 17 December in San Francisco, Calif. The award recognizes significant contributions to and promise in the ocean sciences. Benoît-Bird’s response to receiving the award follows.

Thank you to the colleagues who supported my nomination and the Ocean Sciences section for selecting me for this year’s Early Career Award. I am so privileged to spend my days (and often nights) doing a job I love. One of the things I enjoy most about being in the interdisciplinary field of oceanography is working as part of a group of scientists whose strengths complement each other, bringing about ideas and results that would not have been possible without teamwork. I am lucky to collaborate with wonderful people who both challenge and inspire me. Special thanks to Whitlow Au, Van Holliday, Oscar Schofield, Margaret McManus, Tim Cowles, Mark Moline, William Gilly, Mark Benfield, Scott Heppell, and Ron Kastelein and each of their research groups. I would like to thank all of my colleagues in the College of Oceanic and Atmospheric Sciences at Oregon State University who continue every day to foster the culture of collaboration that is a tradition at OSU. Upon arriving in Corvallis 4 years ago, I had been in my new office for less than 2 hours when I was approached by a senior colleague who wanted to get me excited about an idea for a collaborative proposal. That doesn’t happen everywhere, and it is truly a gift. I also need to thank the collaborators who work with me most closely—my students—and in whose achievements I find the greatest satisfaction.

—KELLY BENOÎT-BIRD, Oregon State University, Corvallis

A special thank-you to my husband and research technician, Chad Waluk, who makes 3 months per year of at-sea research possible and who fills those months, and the ones in between, with laughter. Finally, there could be no greater honor than to have my work recognized by all of you, my peers and my role models in ocean sciences.

Thank you.

—KELLY BENOÎT-BIRD, Oregon State University, Corvallis

2. What are the impacts of the changing carbon cycle, and associated changes in climate, on ecosystems?
3. How will carbon stocks and fluxes respond to policy and carbon management strategies?

The working group agreed that significant progress had been made on many of the objectives of the 1999 plan but that the revised plan should include more explicit recognition of the fact that humans are an integral part of the carbon cycle, and more detail concerning the research required for decision support, carbon management, and improving prediction of the future carbon cycle. Questions 1 and 3 are intended to directly incorporate these new themes. An additional proposed change in scope was to include the direct effects of the carbon cycle on ecosystems (e.g., ocean acidification), as summarized in question 2. The group also reaffirmed the need for coordinated research across disciplines.

The second meeting of CCSWG occurred at the North American Carbon Program All-Investigators’ Meeting, 17–20 February 2009 (http://www.nacarbon.org/meeting_2009/index.htm). This meeting also included a plenary presentation and a breakout session to garner community input. Members of the scientific community are encouraged to provide input throughout the development of the plan at http://www.carboncyclescience.gov/carbonplanning.php.

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