

submitted to the Coastal Estuarine Research Federation Conference 2011 in Daytona Beach, FL, Nov 6-10.

Oral presentation.

Taking teachers from the river to the coast: a COSEE Great Lakes and Lake Superior NERR collaboration

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The Center for Ocean Sciences Education Excellence (COSEE) Great Lakes Shipboard and Shoreline Science Workshop provides 15 formal and informal educators of G5-10 an opportunity to spend a week aboard the US EPA's 180' R/V Lake Guardian working side-by-side with Great Lakes scientists and participating in ongoing research. During the workshop, educators meet scientists who work in a variety of aquatic science disciplines, they directly experience Great Lakes research, they learn how to use scientific tools and practices in a hands-on environment, and they develop plans to include Great Lakes science and curricula in their classrooms. For the scientists, these cruises provide the opportunity to showcase their Great Lakes research, to communicate its relevance for advancing scientific knowledge of the Great Lakes and aquatic science in general, and to utilize new web-based and internet-based technologies for communicating their research to broader audience. Newly developed Great Lakes Literacy Principles are one method for connecting active scientific research to enhanced educator scientific literacy. In 2011, the workshop was expanded to include a shore based component sponsored by the Lake Superior National Estuarine Research Reserve. This allowed the workshop to include more teachers and develop educator-educator interactions between the ship-based "blue team" and the shore-based "green team" to help the educators develop an understanding of the ecological connections between land use and coastal water quality. This "shore-to-ship" framework is a method to enhance the broader impacts of the research by providing a peer-centered experience to help the educators internalize the importance of human impacts to the landscape on regional water quality.