

KEYSTONE SHORELINES



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Teachable Moments: Spotlight on Waves and Beaches

Picture this... It's a sunny 55-degree day in November, and twelve teachers are out on the beach holding two-by-fours in the air. Why? Because they were participating in a COSEE (Center for Ocean Sciences Education Excellence) *Teachable Moments* workshop. These workshops are designed to provide formal and informal educators with an in-depth understanding of current marine and freshwater research topics. On November 14 and 15, Dr. David Cacchione, Senior Scientist Emeritus for the United States Geological Survey, led a *Teachable Moments* workshop for regional educators at the Tom Ridge Environmental Center in Erie, Pennsylvania. Workshop activities examined many of the physical processes that are at work along Lake Erie beaches: currents, underwater topography, and sediment transport - processes that also occur in the ocean. Participants learned techniques like how to map a beach profile using two-by-fours and how to toss an orange into the surf to track longshore current. For more information about COSEE activities go to coseegreatlakes.net or contact Marti Martz at 814-217-9015 or mam60@psu.edu.



Sea Grant Welcomes Sara Grise

The newest member of the staff, Sara Grise, officially joined Pennsylvania Sea Grant as a Coastal Outreach Specialist in November 2006. An avid nature enthusiast, Sara earned her bachelor of science in biology with a minor in psychology from Penn State Behrend in May 2006. She began part-time degree work with Sea Grant this past summer, assisting with brown bullhead catfish tumor research, which used radio tagging equipment to track bullhead in Presque Isle and Thompson Bays. Sara also helped to teach *Environmental Rediscoveries*, a shipboard education program that utilizes the Momentum, a 42-foot Friendship Sloop. She will now be working with the Pennsylvania Invasive Species Council to help develop annual AIS prevention work plans. To reach Sara call 814-217-9011 or sng121@psu.edu.



Workshop Highlights Techniques to Prevent Erosion

On November 8 and 9, 2006, Pennsylvania Sea Grant sponsored a workshop for environmental professionals and contractors who want to do more to protect the Lake Erie shoreline and Erie County waterways. The workshop focused on reducing stream bank and lakeshore construction erosion by implementing best management practices such as the revegetation, fencing livestock out of streams, and dewatering (removing groundwater) from shoreline areas prone to slumping. Participants spent a day in the classroom followed by a day in the field to gain first-hand understanding of erosion control techniques. On the first day, participants heard from thirteen presenters including staff from Erie County Conservation District, Pennsylvania Game Commission, Coastal Resource Management program, the Erie County Planning Department, French Creek Project, Ernst Conservation Seed Company, PENNDOT, Venango Township, Pennsylvania Fish and Boat Commission, and Pennsylvania Sea Grant.

On the second day participants visited eight sites, including a stream bank-fencing project where livestock were fenced out of a tributary to French Creek. Prior to the fencing, cattle trampled the stream bank causing the stream to become muddied and to erode. One year after the project, new vegetation had grown along the fenced area holding the soil in place, even during periods of heavy rain, which substantially reduced erosion. The group also visited two areas along French Creek, where erosion is controlled due to a collaborative effort between PENNDOT, Venango Township, and Wattsburg Borough. One area utilized a natural root wad method to keep the bank from eroding, while the second required gabions, which are mesh metal baskets filled with rocks, to halt the rapid rate of erosion that threatened to undermine the stability of Route 474.

Funding for this workshop was provided through the Great Lakes Commission. A second workshop will be held in April 2007. Those interested in attending should contact Marti Martz at 814-217-9015 or mam60@psu.edu.



Sea Grant Bids a Fond Farewell to Anne Danielski

For nearly eight years Anne Danielski served as a tireless member of Pennsylvania Sea Grant. She first joined Sea Grant as a student assistant and was hired as the full-time Coastal Education and Maritime Specialist soon after her graduation from Penn State Behrend. During her time with Sea Grant, Anne coordinated Erie's school-based education programs, served as the liaison to the Bayfront Center for Maritime Studies, and aided in the development of a *Great Lakes COSEE* (Center for Ocean Sciences Education Excellence) where she managed the first *Lake Guardian* workshop. She also developed the interactive CD program, *Project STEAR* (Shipwreck Training Education Archaeology Research), which teaches about Lake Erie maritime history, and most recently *Project FLY* (Fishing and Learning Youth). Her commitment to environmental education won her many accolades, including the Governor's Award for developing and directing the *Environmental Rediscoveries* program, as well as awards for the development of educational inserts in cooperation with the *Newspapers in Education* program on environmental science topics. When she wasn't teaching Anne was eager to learn, and managed to find time to earn a teaching certificate, a master's degree, and a charter boat captain's license.

Anne now works for the Future Fisherman Foundation in Alexandria, Virginia, as director of education. Within the organization, she is the coordinator for *Hooked on Fishing, Not on Drugs*, a national youth program that combines the basics of safe and ethical angling, long-term mentoring, and positive life skills with conservation education to help participants steer clear of drug use.

We will miss Anne's bright smile and eager contributions to marine education. Her insightful questions and determination to learn kept veteran educators on their toes. We all wish her fair winds and following seas in her new endeavors!



The goal of Pennsylvania Sea Grant is to promote the ecological and economic sustainability of Pennsylvania's coastal resources through research and outreach including science-based extension, education, and communication.

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