

See teachers' learning experiences on Lake Ontario Exploration blog

To see fourth-10th-grade educators from New York, North Carolina and Pennsylvania enjoying fabulous hands-on "teach the teachers" opportunities on the week-long Lake Ontario Exploration tour organized by New York Sea Grant and the Centers for Ocean Science Education Excellence Great Lakes with sponsorship by the National Science Foundation and the National Oceanic and Atmospheric Administration, go online to the blog at <http://coseegreatlakes.net/weblog/category/2010-lake-ontario-exploration-workshop>.

New York Sea Grant Web content manager and Northeast Sea Grant Communications representative Paul Focazio created the lively showcase of photographs and activities experienced by the 15 teachers visiting sites in Niagara Falls, Buffalo, Rochester, and Oswego, including universities, field stations, an aquarium, a bathysphere biological lab, the Eastern Lake Ontario dunes system, a fish hatchery, and a maritime museum.

Award-winning New York Sea Grant Coastal Education Specialist Helen Domske introduced the teachers to geologists, researchers, U.S. Fish and Wildlife biologists, representatives of the Tuscarora Nation Haudenosaunee Environmental Management Council, and New York

Sea Grant educators teaching on geospatial mapping and aquatic invasive species. The teachers also had time to create classroom lesson plans based on their experiences.

After visiting the "Touch Tank" at the Aquarium of Niagara with lobsters, sea stars, mussels and other underwater species and the opportunity to hold a Humboldt Penguin, teacher Kristin Sheehan of Pulaski, summed up the experience by saying, "It solidifies the idea that the best kinds of learning are hands-on."

The teachers heard from three New York Sea Grant (NYSG)-funded researchers. Buffalo State College Biologist Dr. Randal J. Snyder is the project leader for a two-year, \$139K New York Sea Grant "Understanding alewives lives improves salmon fishery management" project designed to improve understanding and accurate forecasting of the condition and growth of alewives, an important component of the Great Lakes food web.

Snyder is evaluating how lake temperature, ration size and prey composition influence alewife growth and condition. Given the dramatic changes occurring in the Great Lakes food webs, development of accurate measures of alewife condition and growth will improve fisheries man-

agers' ability to optimize salmonine stocking rates, forecast how changes in food webs or abiotic factors will affect alewife populations, and better predict the impact of alewives on their prey populations.

SUNY College at Buffalo Biologist Dr. Christopher M. Pennuto is the project leader for "Assessing Barriers to Round Goby Invasion of Great Lake Tributary Streams," the two-year, \$101K New York Sea Grant project that wrapped up late last year. The exotic round goby has had a significant impact in the Great Lakes and is expanding its range. There is concern over its ecological impact to tributary streams and how readily the goby will expand upstream. "Our assessment of round goby swimming performance should enable us to collaborate with engineers in developing fish passage designs," says Pennuto.

University at Buffalo investigator Joseph F. Atkinson's project on the Development of Resource Sheds in the Great Lakes, other Aquatic Ecosystems was a two-year, \$136K New York Sea Grant project completed late last year. Atkinson and his team created a Web-based tool that allows users to plot a resource shed for Lake Ontario or Lake Erie at any location of interest. After undergoing testing off-and-on for about a year, Atkinson

Pulaski biology teacher Kristin Sheehan (left) and G. Ray Bodley High School (Fulton) biology teacher Kit Marshall point out one of several species of gulls on display at the SUNY Oswego Rice Creek Field Station. The teachers were among 15 colleagues from New York, North Carolina and Pennsylvania schools participating in the hands-on teach the teachers Lake Ontario Exploration tour organized by New York Sea Grant and the Centers for Ocean Science Education Excellence Great Lakes. (Photo: NY Sea Grant)



says, "this tool will be able to plot resource sheds not only for the long-term average hydrodynamic conditions originally proposed but also for a set of historic conditions, for years since about 2000."

For more information, contact New York Sea Grant Coastal Education Specialist Helen Domske at 631-632-6956.