



Smooth Sailing for Great Lakes Education

Helen Domske and Dr. Greg Boyer, of SUNY ESF, demonstrate a Secchi disk to teachers aboard the *Lake Guardian*.

Photo courtesy of L. Makeyenko

The spring and summer of 2006 have been filled with many noteworthy Great Lakes education

programs sponsored by New York Sea Grant. On May 18-19, nearly 200 teachers and students from as far away as Indiana came to Buffalo as part of the 6th biennial Great Lakes Student Summit. The GLSS culminates in a two-day event where students come together to act as “student scientists” as they learn from each other and participating scientists and environmentalists who conduct workshops.

Helen Domske, NYSG Senior Extension Coastal Education Specialist, has been one of the organizers since the program’s inception. She also served as a workshop presenter, educating the students about invasive species in the Great Lakes.

During the Summit, students participated in educational workshops, and hands-on field trips, including a voyage on the Buffalo River and Lake Erie. The culminating event is the development of a Statement of Stewardship (S.O.S.), which reflects what they have learned during the summit and how the students can protect the Great Lakes. “Hearing the students read their S.O.S. and knowing that they are pledging to act as the next generation of lake guardians is a key component to the event,” says Domske.

Speaking of a real Lake Guardian, NYSG joined forces with other Great Lakes Sea Grant educators to run a week-long course in early summer for teachers aboard the 180-foot long U.S. EPA Great Lakes National Program Office research vessel, the *R/V Lake Guardian*. This maiden voyage for 16 teachers, six scientists and four Sea Grant educators focused on Shipboard and Shoreline Science on Lake Erie. The cruise was the first major event of the Center for Oceanic Sciences Education Excellence (**COSEE**) in the Great Lakes, a consortium of educators and scientists assembled to promote science

literacy through study of the Great Lakes, America’s inland sea. COSEE GL is sponsored by the National Science Foundation and the National Oceanic and Atmospheric Administration.

The teachers aboard the *Lake Guardian* learned first-hand beside scientists from four states, including **Dr. Greg Boyer**, a Sea Grant researcher from New York. A typical day included stops at research sampling sites along the lake where teachers actively collected information about water quality, physical conditions, and life forms in the water and on the bottom surfaces. After collecting samples, the teachers headed to the ship’s laboratories where they learned how to interpret new data and identify lake plankton and benthic invertebrates. Their information will be added to the EPA’s data, but more importantly it will become part of curricula in grades 4-10 and informal education centers in Ohio, Pennsylvania and New York.

Helen Domske had the opportunity to teach the enthusiastic crew of educators about Lake Erie and the damage that invasive species have done to the environment. Along with lectures and lessons, the teachers experienced Lake Erie’s sudden storms,

Students learned about Niagara Falls and the Niagara River as one of the field experiences of the GLSS.
Photo courtesy of GLSS Committee



mayfly swarms, and the intricate interrelationships of wind, water, land and life in and around the lake. One of the national COSEE goals is to develop interrelationships with educators and scientists and this course provided many opportunities for teachers and researcher to work side-by-side aboard the ship.

The summer ended with a week-long course led by New York Sea Grant to teach Great Lakes educators about tropical marine ecology in Roatan, Honduras. With the marine focus of COSEE, the Great Lakes program wanted to teach educators how to make a connection between the Great Lakes and ocean environments. Through a series of “marine immersion” experiences, COSEE GL will help educators learn about the similarities and differences between salt and

freshwater environments. The Roatan trip was the first such course and the nine educators involved enjoyed the opportunity to learn about coral reefs, seagrass beds, and mangroves. NYSG’s Helen Domske served as one of the course co-leaders along with **Garry Dole** of ERIE 2 Board of Cooperative Educational Services. During the week, Domske was able to link Great Lakes environmental issues into their marine experiences, but there was no freshwater comparison to the thrill of snorkeling with a pod of bottlenose dolphins!

NYSG’s Great Lakes educational opportunities of this summer provided teachers and students with a great deal to think about as they start a new school year.

— **Helen Domske**



... to see more Great Lakes Student Summit pictures and read the students' full Statement of Stewardship to discover how they plan to better protect the Great Lakes. Also, an 8-day blog offers a more detailed (and visual) account of what teachers learned aboard the Lake Guardian this past summer. And learn more about NYSG's role in COSEE Great Lakes.