

Increasing K-12 teachers' and students' coastal geospatial awareness helps inform sound habitat stewardship.

NYSG Develops Coastal Sea Change Education Materials for New York's Hudson/NYC Estuary Region

n 2012, New York Sea Grant (NYSG), in partnership with the Cornell University Institute for Resource Information Sciences (CUIRS), has developed web-based geospatial learning resources focusing on more than 500 miles of New York coastal and estuarine environments. This project specifically responds to needs expressed by more than 200 grades K-12 educators in the Mid-Hudson and New York metropolitan areas who have participated in Sea Grant geospatial education workshops and field trips.

Hands-on training using publicly-accessible internet resources, including aerial photographs, nautical charts, and maps, helps program participants virtually travel "up and away" to explore the diverse features of their local New York coastlines and learn how these areas have been altered by natural and human activities over the last century.

Program participants at hands-on workshops organized by NYSG have stated the need to be able to retrieve, download and use materials in electronic format for classroom use. In response, NYSG and its project partners developed webbased materials for eight sites throughout the Harbor-Estuary. The resources for each site tell a unique story about the urban and suburban estuaries, of the growth of the coastal communities over time, and the impacts changes have had on habitats. The project materials include an overview of New York City (NYC) estuarine waterways, and the physical settings, environmental challenges





On the Map: above, students explore during high tide near Saugerties on the Hudson River; left: Saugerties Lighthouse in Ulster County is one of the eight study sites developed by the NYSG project team. Once used as an aid to navigation, the lighthouse is now an operating Bed and Breakfast in a publiclyaccessible historic park. Photos: Nordica Holochuck, NYSG

and existing programs working to protect and promote responsible stewardship of the region.

NYSG has partnered with Queens College in NYC, recipients of a NOAA Environmental Literacy Grant to launch newly-reformatted materials through an upcoming series of training workshops for K-12 teachers in NYC. Helping educators understand how coastlines change over time informs sound habitat stewardship.

NYSG partners in the effort to inform teachers and students about New York's estuarine resources include the Cornell Institute for Resource Information Sciences, Cornell Cooperative Extension (CCE) administration, CCE Ulster County, Queens College, and NOAA.

This project meets the performance goals of Sea Grant's Healthy New York Coastal Ecosystems Focus Areas.

New York Sea Grant is a joint program of Cornell University, the State University of New York, and NOAA. New York Sea Grant Extension administration is located at 112 Rice Hall, Cornell University, Ithaca, NY 14853. *This project summary was written by Nordica Holochuck, Hudson Estuary Specialist,* 845-340-3893, nch8@cornell.edu, www.nyseagrant.org