

NYSG Helps Students Assist Local Restoration Project

New York Sea Grant partnered with watershed interest groups to provide local students with hands-on learning opportunities.

In 2010, the communities within New York’s Nissequogue River Watershed came together to develop an Action Plan. One of the objectives of the plan was to restore tidal flow to surrounding wetlands and to facilitate fish passage upstream on Sunken Meadow Creek at Sunken Meadow State Park. A culvert system, built in the 1950s, was restricting tidal flow in the lower reaches of the creek and restricting the natural flow and flushing of the waterway. The creek was suffering from resulting excessive nutrient levels and temperatures as well as becoming a bottleneck for fish passage.

A habitat restoration project for the area would restore 132 acres of wetland habitat, but, in order to get funding for this habitat restoration project, the New York State Office of Parks, Recreation and Historic Preservation (NYSOPRHP) needed to provide data about the potential impacts of the restoration project. With limited staff, NYSOPRHP did not have the means to collect this information.

NY Sea Grant partnered with NYSOPRHP and the NYS Department of Environmental Conservation to set up a Sound Stewards program in which students would collect the desired data as part of their research projects. Starting in 2008, students from Hauppauge High School in Hauppauge, NY, travelled to Sunken Meadow State Park twice a month to collect data on water quality, macroinvertebrate assemblages, and fish populations in Sunken Meadow Creek. They also learned about the surrounding habitats and, during the process, developed an increased in stewardship for the park and natural resources in general.



Students from Hauppauge High School sample fish populations at Sunken Meadow Creek. Photo: Larissa Graham, NYSG

In 2012, Hurricane Sandy floodwaters washed away most of the culvert system, causing a 50-foot break in the berm built on Sunken Meadow Creek. As a result tidal flow was restored to the Creek.

Sampling one month after the breach indicated that salinity levels and fish populations had changed drastically, water clarity had improved, and changes in water quality and fish populations indicated that tidal flushing was occurring.

Thanks to the Sound Stewards program at Hauppauge High School, NYSOPRHP now has five years’ worth of data for use in tracking how the impacts of Hurricane Sandy have affected this Creek now that tidal flow is restored.

The Hauppauge High School Sound Stewards will be continuing their sampling efforts and comparing year-to-year datasets as part of their student research projects.

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

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 Larissa Graham, Long Island Sound Study Outreach Coordinator, 631-632-8730, ljl85@cornell.edu, www.nyseagrant.org