

Creating New Ways to Teach Biodiversity in NYS High Schools

In 2007, New York Sea Grant and the Yale Peabody Museum of Natural History collaborated to create a new and exciting resource to improve the capabilities of grade 5-9 science teachers to teach biodiversity and global climate change in the classroom. Long Island Sound (LIS) lobster mortality research was used to create a curriculum to meet New York State Learning Standards. The classroom activities use inquiry-based approaches to improve critical scientific reasoning. Incorporating the lobster mortality research into activities conveys important concepts and illustrates key environmental phenomena.

Fifty-four science teachers and outdoor educators from New York and Connecticut participated in a two-day workshop series to evaluate the new curriculum. The educators learned how stressful conditions in LIS and the shell disease that is occurring throughout New England affect American lobsters' health.

As part of the workshop, the educators visited a salt marsh in Sunken Meadow State Park, where they cast seines and observed marine life. These true-life examples will empower science teachers to engage their students in life and earth sciences, and assist students to connect with the marine environment.



Michelle Wise (far left) of the BOCES Outdoor Learning Center shares her knowledge about marine and shore life ecology with teachers. Photo: Antoinette Clemetson, NYSG



High school science teachers learn about marine biodiversity at a salt marsh in Sunken Meadow State Park. Photo: Antoinette Clemetson, NYSG

As a result of this outreach project:

- a new science curriculum is available to better prepare students to prepare for NYS Regents Exams,
- two *BioAction Kit Backpacks* containing resources to conduct classroom activities were created to support a new revolving loan program for Long Island science teachers,
- approximately 100 high school science teachers participated in a special session at the Smithtown Central Public School District's (HS West Campus) science teachers' professional development day, and
- Smithtown Central Public School District (HS West Campus) is working with the coordinators to construct their own *BioAction Kit Backpack* to benefit 1,700 students.