

Pennsylvania Sea Grant 2005-2006 Highlights

The past year has been our most productive to date as the National Sea Grant office changed Pennsylvania Sea Grant's designation from project to Coherent Area Program and supports Penn State as the institution to lead the Sea Grant effort in Pennsylvania. This moves Pennsylvania Sea Grant one step closer to becoming a full college program.

Research Highlights

- Director Bob Light continues as president of the Regional Science Consortium at Tom Ridge Center at Presque Isle. Includes working in conjunction with Pennsylvania's Department of Conservation and Natural Resources (DCNR) on the design and oversight of a 6,000-square-foot laboratory complex in the center, direction of the center's science consortium, oversight of part-time consortium executive director, and acquisition of laboratory equipment and supplies (projected equipment grants total \$292,000). The consortium currently includes twenty-six member organizations, including fourteen colleges and universities, from the United States and Canada.

- Oversight, with DCNR, of a 1,500 square-foot field station on Presque Isle where researchers can prepare samples and conduct in situ research.

- Eight applied research grants were funded totaling \$86,997:
 1. Genetic Population Structure of Yellow Perch (*Perca flavescens*): Presque Isle Bay Compared with Other Lake Erie Sites. Mansfield University of Pennsylvania, \$8,000
 2. A Population Assessment of Rudd (*Scardinius erythrophthalmus*) in Presque Isle Bay, Lake Erie. Penn State, University Park Campus, \$5,000
 3. Ecotoxicology of Snapping Turtles (*Chelydra serpentina*) in Presque Isle Bay and the Pennsylvania Lake Erie Watershed. Pennsylvania Fish and Boat Commission, Penn State Behrend, and Edinboro University, \$15,000
 4. Distribution and Migration of Brown Bullheads in Presque Isle Bay as Related to the Great Lakes Water Quality Agreement - Area of Concern. Gannon University, \$11,000
 5. Comparison of Three Outreach Methods to Increase Safe Fish Consumption Awareness among Cambodian and Vietnamese Residents of Philadelphia. Temple University and the Partnership for the Delaware Estuary, \$20,997
 6. Melding Research with Environmental Education: Stream Ecology and Restoration. West Chester State University, \$10,000
 7. Distribution of the Invasive Red-Eared Slider Turtle (*Trachemys scripta elegans*) in the Lower Delaware River Basin. Pennsylvania Fish and Boat Commission and Drexel University, \$10,000
 8. Microbial Food-Web Structure and Function in Lake Erie: Influence of Benthic-Pelagic Coupling on Hypoxia in the Central Basin. Penn State University, University Park Campus, \$7,000

Extension Highlights

- Staff previously worked with the Pennsylvania Department of Environmental Protection (DEP) to designate the Presque Isle Bay Area of Concern (AOC) as an Area in Recovery (the first such redesignation in the United States). Pennsylvania Sea Grant received two U.S. EPA Great Lakes National Program Office (GLNPO) grants totaling more than \$330,000 to standardize criteria for assessing fish tumors in AOCs and to develop long-term monitoring plans for assessing sediment contamination in Presque Isle Bay.
- Lake Erie staff hosted a workshop on establishing restoration priorities for the Great Lakes from nine priorities that were identified by the Council of Great Lakes' Governors.
- Ann Faulds serves as chair of the Outreach and Education Workgroup and Sarah Whitney serves as the chair of the Policy Workgroup for the Mid-Atlantic Aquatic Invasive Species (AIS) Regional Panel.
- Extension director Eric Obert will serve on the newly created Pennsylvania Invasive Species Council. Sarah Whitney is working with the council to develop a statewide management plan for invasive species.
- Dave Skellie has been appointed to serve on the Great Lakes Regional Water Resource Committee. Sea Grant will take a lead role to assist DEP in developing a statewide water management plan.
- Sarah Whitney has taken a key role to assist DEP's CZM program in implementing a clean marina-smart boating program for Pennsylvania. The program will build on models developed by the Philadelphia Water Department and the Sea Grant Network.
- Sean Rafferty will assist the national AIS and pet trade campaign, *Habitattitude*, a program to stop the introduction of exotics into the wild, with its rollout in Erie.
- Under Dave Skellie's leadership as chair of the Corridor Management Plan steering committee, the Seaway Trail in Pennsylvania's Lake Erie region received National Scenic Byway designation on September 22, 2005, from the Federal Highway Administration, which makes it eligible for federal funding.
- Pennsylvania Sea Grant is working on the third year of a DEP Growing Greener grant of \$246,056 to establish a Nonpoint Education for Municipal Officials (NEMO) program in the Lake Erie watershed. To date, program staff has developed relationships with five municipalities, providing technical and educational assistance related to land use and water quality and quantity.
- Staff is assisting with smart growth planning for the Lake Erie Watershed Conservation Plan, which will help to preserve rural areas and revitalize urban areas. Among the activities is the application for funds for the purchase of conservation easements. Several easements have been purchased to date.

- In April 2005, Sea Grant prepared a grant application on behalf of Millcreek Township to acquire two parcels of land totaling approximately twenty-two acres. This acquisition, which was approved in the amount of \$217,000, by DCNR on August 29, 2005, will preserve this tract of land along Walnut Creek which is a critical natural area and wildlife habitat in a rapidly developing part of the township.
- Staff is active with the Pennsylvania Lake Erie Watershed Association, an organization that encourages efforts to eliminate nonpoint sources of pollution entering Lake Erie.

Education Highlights

- In collaboration with Delaware and Maryland Sea Grant, Pennsylvania Sea Grant successfully finished piloting a series of fifteen-hour workshops for teachers and environmental educators, *Invasive Species: the Good, the Bad and the Prolific*. The need for education about invasive species has never been greater with the recent discovery in Pennsylvania of northern snakeheads, red piranha, flathead catfish, and water chestnut.
- Collaborated with Great Lakes Sea Grant partners to secure funding for the development of a Great Lakes COSEE (Center for Ocean Science Education Excellence). Some of the major initiatives include enhanced interactions between educators and research scientists, public seminars, online workshops, and a compilation Great Lakes educational materials.
- Coordinated annual Coastal Connections watershed festival providing educational activities and information for the public. More than ten local organizations participated in the festival.
- Provided outdoor environmental education programming for sixty inner city Hispanic youth through the *Teaching Outdoors to Urban Communities Helps Nature* (TOUCH) Nature program, with Presque Isle State Park and Bayfront Center for Maritime Studies.