

Board the Barnum

How do water and weather conditions change from minute to minute on Long Island Sound? That information can be vital for scientists, anglers, weather forecasters and travelers between Long Island and Connecticut. Now, starting with a September 2003 inaugural demonstration of a first-of-its kind observation system known as **Sound Science**, ferry passengers and educators as well as researchers anywhere in the world can receive both instant and continuous information about the health of Long Island Sound, one of the region's most important estuaries.



New York Sea Grant Director Jack Mattice thanks the project partners aboard the *PT Barnum* during the demonstration cruise. The kiosk on the passenger deck (pictured) displays real-time conditions in Long Island Sound. Photo by John Griffin/SBU Media Services

In an innovative approach to coastal research funded by New York Sea Grant, researchers **Duane Waliser** and **Robert Wilson** at Stony Brook University's Marine Sciences Research Center and their team have installed cutting-edge oceanographic and atmospheric monitoring equipment aboard the *P.T. Barnum* ferry. Through a unique partnership between one of the world's leading oceanographic institutes and the Bridgeport & Port Jefferson Steamboat Company, scientists can now visualize and record the "heartbeat" of Long Island Sound. Instruments automatically transmit data to a Web site operated by the Marine Sciences Research Center, www.stonybrook.edu/soundscience.

~~And the winner is.....~~

~~Peter Martin, a middle school science teacher from Oceanside High School on Long Island, correctly identified the species in both the Great Lakes and the Long Island Bays challenge in our Summer *Coastlines* issue. It's no surprise. This energetic teacher is at home in the outdoors. He's a triathlete, an avid birder and scuba diver who in his spare time goes kayaking! So~~

~~kudos to our winner of original artwork by illustrator Jan Porinchak.~~

~~And thanks, too, for others who participated in the contest and have told *Coastlines* about their interest in having posters of the Great Lakes and Long Island Bay food webs. We will announce when these become available.~~

~~Look at page 14 for the answer keys.~~

~~Both articles by Barbara A. Branca~~



Photo by Susan Hamill

On September 29, one hundred invited guests—elected officials, community leaders, scientists, educators, students and the media—boarded the *Barnum* and saw first-hand some of the monitoring devices and viewed the computer screen that displays their measurements at a kiosk on the passenger deck. The demonstration sunset cruise came on the heels of National Estuaries Day, a day to teach awareness of the nation's estuaries that has been designated by the National Oceanic and Atmospheric Administration. The National Weather Service (which is part of NOAA, as is Sea Grant) as well as Stony Brook University contributed much to the project.

Normally, water temperature, salinity, oxygen and currents are learned about from research vessels that are costly to run and can cover only a limited portion of a water body. Limited, too, are meteorological measurements made by stationary instruments in one location. The ferry's mobile nature provides the research team with both weather and water data from across the Sound in real-time. From it, researchers are getting a clearer picture of the impact the atmosphere has on **hypoxia**, a condition of low dissolved oxygen that is stressful to lobsters as well as a wide range of the Sound's aquatic organisms. The *Sound Science* observation system has potential uses for researchers worldwide as well as meteorologists and educators whose mission it is to keep the public informed.



Above: Marine Sciences Research Center researcher Robert Wilson explains some *Sound Science* to guests aboard the ferry. Photo by John Griffin/SBU Media Services

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