LONG ISLAND SOUND RESEARCH

UConn Professor Beth Lawrence collects data on surface water salinity with student Madeline Kollegger at a Barn Island tidal marsh as part of a 2017 LISS Research Program project. Credit: Emily Couture (CAHNR)/UConn Photo)

LISS RESEARCH PROGRAM

Since 2000, LISS has supported a Research Program to investigate complex ecological issues for the purpose of helping resource managers address ways to improve the health of the Sound. Through LISS research grants, scientists have increased our understanding of the connection between nutrient pollution and the Sound's water quality, the impacts of pollution on habitats and fisheries, and the impacts of a changing climate on the Sound and its habitats.

LISS Research Highlights:

- Conducts biennial research conferences and quarterly meetings of the Science and Technical Advisory Committee to share scientific knowledge.
- Integrates data from the LIS comprehensive water quality monitoring program into scientific investigations.
- Published technical synthesis of Long Island Sound research: *Long Island Sound: Prospects for the Urban Sea.*

THE LONG ISLAND SOUND STUDY (LISS) brings together agencies, commissions, universities, citizens, and environmental, industry, and user groups to improve the health of Long Island Sound. Their efforts help achieve progress toward Clean Water, Thriving Habitats, and Sustainable Communities.

Learn more at: LISStudy.net

2019 RESEARCH PROJECTS

LIS Respire Program

Researchers: Penny Vlahos, Jamie Vaudrey, and Michael Whitney, University of Connecticut

The team will sample several components of the respiration process at 10 locations to better understand how oxygen is used by aquatic life. The research will help inform management decisions on maintaining sufficient oxygen levels in the Sound.

Water Column O2 Respiration – Rates, Distribution, Drivers and Elemental Stoichiometry

Researcher: Craig R. Tobias, University of Connecticut

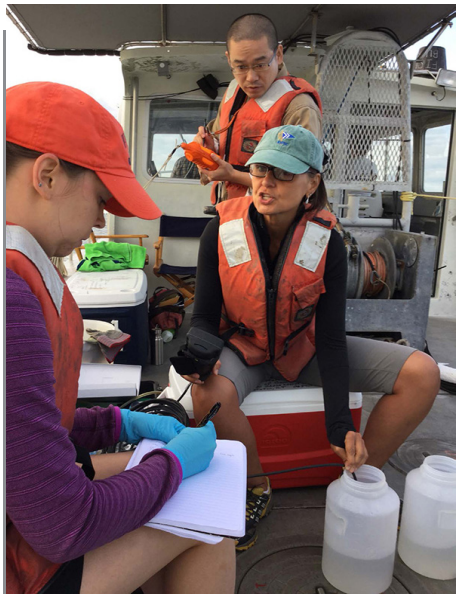
Dr. Tobias will use an automated respiration chamber to measure respiration at locations where plankton production is at its highest. The research will help to better understand why the urbanized Western Long Island Sound is vulnerable to low oxygen (hypoxic) conditions.

Eliciting and Modeling Residential Lawn and Landscape Practices: Systematic Information to Assess Knowledge, Explicate Behavior and Inform Management

Researchers: Robert Johnson, Clark University; Peter Groffman, City University of New York; Colin Polsky, Florida Atlantic University

The team will study and explain how different lawn care practices influence nitrogen export and stormwater runoff, and will evaluate the effectiveness of programs and policies designed to encourage less polluting lawn care and landscaping practices.

Refined Integration of Remote Sensing with Biological Parameters for Improved Management of the Sound's Water Quality



Dr. Penny Vlahos, center, collecting water quality data on board a UConn research vessel. Credit: CT Sea Grant.

Researchers: Maria Tzortziou, City College of New York: Dianne Greenfield, CUNY—Advanced Science Research Center and Queens College; and Joaquim Goes, Lamont-Doherty Earth Observatory, Columbia University

The team will develop new remote sensing (satelite imagery) products that will be useful to understanding some of the Sound's critical water quality problems, including high nutrient loadings, hypoxia, and harmful algal blooms.

Research on the Web

Learn more about the 47 research projects LISS has funded since 2000 at: LISStudy.net/research.