

## Long Island Sound License Plate Projects



Please note that this list includes all Research projects funded through the Long Island Sound Fund and is organized alphabetically by recipient.

### Research

Award Recipient - Municipality or Community Affected	Award Amount/ Date Awarded	Project Status
<b>Branford Land Trust, Inc. - Branford</b>  <i>Sybil Creek Restoration</i>  A study to provide baseline data and preliminary habitat assessment of the Sybil Creek marsh system prior to restoration activities, and a follow-up presentation of the information to area residents and other interest groups.	<b>\$16,417.81</b> <b>1998</b>	Project Fully Complete?    Yes
<b>Coast &amp; Harbor Institute, The - Multiple Municipalities Affected: East Lyme, Groton, Norwich, Stratford, Waterford</b>  <i>Oxygen Depletion in Connecticut Estuarine Waters</i>  A research study to provide information about oxygen depletion and ventilation of hydrogen sulfide from tidally influenced ponds and tidal rivers in Connecticut.	<b>\$24,050.00</b> <b>2001</b>	Project Fully Complete?    Yes

**Connecticut Agricultural Experiment Station, The - Madison**

**\$24,863.00**  
**2006**

Project Fully Complete? Yes

*Role of Fusarium Pathogens with Sudden Wetland Dieback in Connecticut's Long Island Sound*

A research study to determine what role a fungal pathogen, *Fusarium* sp. might play in Sudden Wetland Dieback (SWD) of native tidal wetland vegetation.

**Connecticut College - Lower CT River tidal marshes**

**\$21,083.00**  
**2002**

Project Fully Complete? Yes

*Restoration Ecology of the Lower Connecticut River Tidelands: Impacts of Restoration Methodologies on Vegetation, Macroinvertebrates and Fish*

A research study to evaluate the results of efforts to restore tidal wetlands invaded by *Phragmites australis*

**Connecticut College - Multiple Municipalities Affected: Statewide**

**\$20,728.00**  
**1995**

Project Fully Complete? Yes

*Ecological Evaluation of the Salt Marsh Restoration of 6 Sites in Connecticut*

A study to document the changes in the vegetation of previously *Phragmites* dominated marshes that have had tidal flooding restored over a range of time periods to assist in the understanding of how best to arrest or eliminate *Phragmites* and favor *Spartina* dominated salt marshes along Connecticut's Long Island Sound shoreline.

**Connecticut College - Multiple Municipalities Affected: Statewide**

**\$16,902.00**  
**1995**

Project Fully Complete? Yes

*Impact of Spread of Phragmites on Populations of Tidal Marsh Birds in Connecticut*

A research project to survey bird populations in the breeding season at 40 sites along the Connecticut coast in order to compare the bird communities in sites that have been invaded with dense stands of *Phragmites* and sites where the dominant vegetation is *Spartina* and *Typha* with a subsequent multivariate analysis conducted to determine whether the percent cover of *Phragmites* is an important predictor of the abundance of particular species of marsh birds.

**Connecticut College - Multiple Municipalities Affected: Connecticut River (Lower Valley)** **\$24,074.00** Project Fully Yes  
**1996** Complete?

*Phragmites australis* the Tidelands of the Lower Connecticut River

A study to evaluate the success of *Phragmites* control efforts within the brackish tidelands of the lower Connecticut River and the possible impact on the structures and functioning of these tidal wetland communities.

**Connecticut College - Stonington** **\$19,157.00** Project Fully Yes  
**2001** Complete?

*Establishment of Sedimentation-Erosion Table Monitoring Station at Wequetequock-Pawcatuck Marshes*

A research and monitoring study to measure the changes in tidal marsh surface elevation in relation to sea level rise, subsidence and sedimentation to assist in future tidal wetland restoration projects.

**Connecticut College - Stonington** **\$22,082.93** Project Fully Yes  
**2005** Complete?

*Impacts of Salt Marsh Restoration on Microbial Community Structure and Diversity*

A research study to evaluate differences in the microbial community structure and diversity in a restored salt marsh habitat at the Barn Island Wildlife Management Area in Stonington and in other undisturbed marshes, and to identify populations that change in relation to the restoration status of the salt marsh.

**Connecticut River Estuary Regional Planning Agency - Multiple Municipalities Affected: Connecticut River (Lower Valley)** **\$12,500.00** Project Fully Yes  
**2001** Complete?

*Investigation of Potential Impact of New Dock Construction on the Lower Connecticut River.*

A research study to evaluate the potential cumulative and secondary impacts of new dock construction on the lower Connecticut River.

**DEP Bureau of Natural Resources, Marine Fisheries - Lower CT River** **\$23,583.22** Project Fully Yes  
**2004** Complete?

*Atlantic Sturgeon in Long Island Sound*

A research study to collect information about Connecticut's population of Atlantic Sturgeon and their habitat

**DEP/Wildlife Division - East Lyme, Groton, Lyme, Old Lyme, Stonington, Old Lyme, Lyme, East Lyme, Groton, Stonington**      **\$23,008.70**      Project Fully      Yes  
**2003**      Complete?

*Assessing the Impact of Mute Swan Grazing on Long Island Sound Eelgrass Beds*

A research study to test the hypothesis that loss of shallow water eelgrass beds can be attributed to persistent grazing by resident mute swans and Canada geese.

**DEP-Bureau of Natural Resources, Wildlife Division - Multiple Municipalities Affected: Statewide**      **\$14,280.45**      Project Fully      Yes  
**1994**      Complete?

*Diamondback Terrapin Assessment and Monitoring*

A survey of population distribution of diamondback terrapins, including an assessment of the potential health risks of their consumption.

**DEP-Environmental Services - Multiple Municipalities Affected: Connecticut River**      **\$40,000.00**      Project Fully      Yes  
**1993**      Complete?

*Side Scan Sonar Data Collection and Mapping of Long Island Sound*

Collection of Side-scan sonar data for integration into the DEP/U.S. Geological Survey Cooperative geologic mapping program, used to map and understand the complex sediment systems and associated habitats and pollutants of Long Island Sound, and provide useful information in determining how sediments move, and how physical processes interact with the substrate to create and modify habitats and/or produce sinks for contamination.

**EnviroGraphics - Multiple Municipalities Affected: Connecticut River**      **\$25,000.00**      Project Fully      Yes  
**1995**      Complete?

*Evaluation of Geographic Distribution of Phragmites australis in the Connecticut River*

A baseline study to characterize the extent distribution of *Phragmites* using aerial photography, geographic information systems and global positioning systems technology and delineate *Phragmites* stands through photo interpretation, and data converted to a GIS format.

**Fairfield University - Fairfield**      **\$5,755.10**      Project Fully      Yes  
**1997**      Complete?

*Population Study of Diamondback Terrapins in Nell's Island Marsh*

A study to determine population and nesting characteristics of Diamondback Terrapins, an important estuarine species of turtle in the state.

**Fordham University - Connecticut tidal marshes Fairfield to Stonington** **\$15,012.01** Project Fully Yes  
**2002** Complete?

*Abundance and Breeding Success of American Black Ducks, Rails and Other Waterbirds in Relation to Vegetation Cover and Invertebrates*

A research study to evaluate factors important to bird abundance, species richness, and breeding success in Long Island Sound tidal marshes.

**Guilford Public Schools - Guilford** **\$15,283.36** Project Fully Yes  
**1995** Complete?

*LIS Water Quality Assessment Project: Pilot Region - Guilford Harbor*

Assessment of the water quality of Long Island Sound by sixth grade students of Baldwin Middle School through hands-on water quality monitoring of three local watersheds, and including the seventh and eighth grade science students from Adams Middle School in the project by allowing them to analyze and interpret the collected data, including projections of changes that may take place in Long Island Sound.

**Heritage Consultants, LLC - Connecticut River** **\$24,971.00** Project Fully Yes  
**2005** Complete?

*Documenting Shipwrecks in the Connecticut Waters of Long Island Sound*

A research study to document the location of shipwrecks in Connecticut waters of Long Island Sound and integrate this data into a database, transform it into a GIS system consistent with DEP's existing data layers providing easy access to historical shipwreck location information.

**Interstate Environmental Commission - Milford** **\$24,670.00** Project Fully Yes  
**2006** Complete?

*Impact of Summer Ambient Temperatures on Elevated Levels, Persistence and Regrowth of the Enterococci Indicator Bacterial at the Silver Sands State Park Beach in the Long Island Sound Coastal Area*

A research study to analyze localized conditions contributing to high concentrations of indicator bacteria that pose a general health hazard and prevent safe use of Long Island Sound beaches.

**Madison Land Conservation Trust - Madison** **\$2,950.00** Project Fully Yes  
**1994** Complete?

*Remove Airplane Hangar*

Removal of a derelict airplane hangar and associated debris from a parcel known as the Ox Pasture in the East River/Neck River marshes in Madison in order to restore the site. This is the 2nd phase of a 3 phase project.

**Manomet, Inc. - Multiple Municipalities Affected: Statewide** **\$25,000.00** Project Fully Yes  
**1999** Complete?

*Assessment of Critical Migratory Shorebird Habitats along Connecticut's Coast*

Identification and mapping of critical migratory habitats for shorebirds on the Connecticut coast, evaluation of use and status of shorebird habitats, and establishment of a citizen monitoring network.

**Maritime Aquarium at Norwalk, The - Norwalk** **\$20,571.00** Project Fully Yes  
**2000** Complete?

*Identification and Characterization of Harbor Seal (Phoca vitulina) Haul-Out Sites in the Norwalk Islands*

A study to identify and characterize critical land based seal habitats available to harbor seals in the areas surrounding the Norwalk Islands.

**Massachusetts Audubon Society - Multiple Municipalities Affected: Statewide** **\$11,680.00** Project Fully Yes  
**1999** Complete?

*Anthropogenic Effects on the Distribution and Abundance of Breeding Salt Marsh Birds in Long Island Sound and New England*

A 2-year regional survey of salt marsh breeding birds in Connecticut, consists of part of a larger effort to census salt marsh birds from Connecticut to Maine, and considered of highest priority by the New England section of Partner's in Flight. The study includes an assessment of the effects of human disturbance and salt marsh vegetation and size on the distribution and abundance of all breeding bird species, and establishment of a long-term monitoring program to detect possible trends in bird populations.

**Nature Center for Environmental Activities - Westport**

**\$24,220.00**  
**1993**

Project Fully Complete? Yes

*HarborWatch/RiverWatch Research*

Scientific water quality monitoring of three southwestern Connecticut harbors (Saugatuck, Norwalk, Five Mile River) and the Connecticut River, Saugatuck River, Indian River and Sasco Creek by a volunteer citizen's action group called Harbor Watch/River Watch to ensure the biological integrity of such waterways with resulting data and education materials shared with the public, state environmental agencies and other environmental institutions in an effort to solve identified environmental problems.

**Sacred Heart University, Incorporated - Milford**

**\$19,727.50**  
**2002**

Project Fully Complete? Yes

*Population Ecology and Conservation of the Long Island Sound Horseshoe Crab (Limulus polyphemus)*

A research and monitoring study of the population dynamics of horseshoe crabs in Long Island Sound through the use of sonar tagging.

**Save the Sound, Inc. - Multiple Municipalities Affected: Guilford, Stamford, Westport**

**\$20,088.00**  
**1998**

Project Fully Complete? Yes

*Impact of Nutrients in Three Long Island Sound Harbors.*

A water quality testing program in Cos Cob, Stamford and Guilford Harbors.

**Save the Sound, Inc. - Stamford**

**\$25,000.00**  
**1994**

Project Fully Complete? Yes

*Monitoring Water Quality*

A water quality monitoring program to assess the water quality of two harbors (Stamford and Cos Cob) and begin to monitor Black Rock Harbor. Activities include collection of data, production of a year-end report distributed to local, state, and federal levels to justify improvements in sewage treatment plants, septic systems and land use practices.

<b>Science Center of Connecticut, Inc. - Multiple Municipalities Affected: Connecticut River</b>	<b>\$17,679.08 1999</b>	Project Fully Complete?	Yes
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*Amphibians and Reptiles in Connecticut River Phragmites and non-Phragmites Habitats with Guidelines for Restoration*

Study of diversity, abundance and health of amphibian and reptiles in *Phragmites* and non-*Phragmites* habitats in freshwater tidal marshes on the Connecticut River to assess the impacts of *Phragmites* invasion on herpetofaunal communities and make recommendations concerning marsh restoration goals for amphibians and reptiles around Long Island Sound.

<b>UConn – Clinton, Guilford, Madison, Old Saybrook</b>	<b>\$24,430.78 2006</b>	Project Fully Complete?	Yes
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*Estimating the Demographic Consequences of Wetland Fragmentation: Movement and Survival Patterns in a Threatened Salt Marsh Bird*

A research study to further scientific knowledge of survival, habitat use and post-fledgling movement of Saltmarsh Sharp-tailed Sparrows, a tidal wetland bird species of special concern in Connecticut.

<b>UConn - Clinton, Groton, Madison, Milford, Waterford</b>	<b>\$24,969.00 2003</b>	Project Fully Complete?	Yes
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*Invertebrates of Connecticut Coastal Strand Communities*

A research study to collect preliminary invertebrate inventory data for beach, sand dune and grasslands communities of the Connecticut shoreline as a first step in protecting these habitats and organisms

<b>UConn - Connecticut River Wethersfield to Holyoke, Massachusetts</b>	<b>\$24,593.67 2006</b>	Project Fully Complete?	Yes
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*Estimating Predation on Declining River Herring: Tag-Recapture Study of Striped Bass in the Connecticut River*

A research study to estimate the population size of striped bass in the Connecticut River during the spring migratory period and to test the hypothesis that consumption of river herring by striped bass can account for the recent declines in river herring run strength on the Connecticut River.



**UConn - Groton** **\$4,469.07** Project Fully Yes  
**2003** **Complete?**

*Identification guide to the larvae and early stages of LIS ascidians and bryozoans*

Creation of an identification guide to the early life stages of Long Island Sound ascidians (tunicates) and bryozoans (true moss animals), including drawings, descriptions and taxonomic keys

**UConn - Groton** **\$24,946.24** Project Fully Yes  
**2008** **Complete?**

*Studies on the Benthic Biology of Mumford Cove, Groton, CT: Assessing the Extent of Habitat Restoration*

A research study to document the conditions of the benthic communities in Mumford Cove in Groton, following the elimination of a former sewage treatment plant effluent discharge into the cove in 1987, and to assess the rate of benthic community recovery.

**UConn - Haddam** **\$24,574.57** Project Fully Yes  
**2002** **Complete?**

*Rain Garden Pollutant Removal Efficiency*

Installation and monitoring of a rain garden at the Cooperative Extension building to test the effectiveness of a rain garden to remove pollutants from rainwater, with a focus on nitrogen removal.

**UConn - Long Island Sound** **\$24,902.75** Project Fully Yes  
**2005** **Complete?**

*A Comprehensive Assessment of the Distribution of Saltmarsh Sharp-Tailed Sparrows in Connecticut*

A research study to conduct a survey of salt marshes throughout Connecticut to document the full range of a state special concern species, the saltmarsh sharp-tailed sparrow.

**UConn - Milford, New Haven** **\$23,337.41** Project Fully Yes  
**2003** **Complete?**

*Determining winter flounder spawning sites in two Connecticut estuaries*

A research study to determine winter flounder spawning habitat requirements and essential fish habitat of the winter flounder egg in New Haven Harbor and Milford Harbor

**UConn – Deep River, Essex, Lyme, Old Lyme, Old Saybrook**

**\$24,866.00**  
**2008**

Project Fully Complete? Yes

*The Expansion of the Long Island Sound Integrated Coastal Observing System to the Connecticut River for Environmental Education and Research*

Expansion of the current Long Island Sound Integrated Coastal Observing System (LISICOS) through installation of new sensors in the Connecticut River at the DEP Marine Headquarters facility in Old Lyme and at the Connecticut River Museum in Essex, and collaboration with the U.S. Geological Survey (USGS) and the Connecticut River Museum in Essex to provide long-term observations of temperature, salinity and sea level to allow the assessment of the effect of global scale climate changes on the ecosystem of Long Island Sound and the Connecticut River, and to provide public educational opportunities.

**UConn - Multiple Municipalities Affected: Statewide**

**\$25,000.00**  
**1998**

Project Fully Complete? Yes

*Development of an Estuary Watch Program and Use of Fundulus heteroclitus as a Biomarker of Estuarine Health.*

Development of an estuary watch program involving high school students to evaluate the health of Connecticut estuaries, using mummichogs as an indicator species.

**UConn – Norwalk, Orange, Stonington**

**\$14,800.00**  
**2006**

Project Fully Complete? Yes

*A Molecular Genetic Approach to Evaluate Herbicide Resistance and Vectors of spread for Populations of the Invasive Aquatic Plant Hydrilla verticillata (Hydrocharitaceae) in Connecticut*

A research study to determine the genetic composition of Connecticut populations of the highly invasive aquatic plant, *Hydrilla verticillata* in an effort to develop an effective strategy to manage this non-native species.

**UConn - Statewide**

**\$24,635.00**  
**2002**

Project Fully Complete? Yes

*Effects of Artificial Lighting on Beach-Nesting Waterbirds: Integrating Experimental and Observational Studies*

A research study to determine the effects of artificial lighting on beach-nesting birds including piping plover and least terns.

**UConn - Statewide**

**\$24,417.88**  
**2002**

Project Fully Complete? Yes

*Saltmarsh Breeding Sparrows in Long Island Sound Marshes: Testing the Status of Globally Important Populations*

A two-year survey to document population sized of saltmarsh sharptailed and seaside sparrows to quantify the global importance of Long Island Sound tidal marsh habitats for these projects.

**UConn-Dept. of Ecology & Evolutionary Biology - Multiple Municipalities Affected: Statewide**

**\$24,837.50**  
**1999**

Project Fully Complete? Yes

*Impacts of Development on Connecticut's Coastal Resources: A Case Study of Eriocaulon parkeri, a State Threatened Species.*

A study to examine the ecological requirements of Parker's Pipewort to define and map its critical habitat and evaluate impacts resulting from recreational dock construction.

**University of Hartford - Groton**

**\$13,934.09**  
**2005**

Project Fully Complete? Yes

*Growth Rates of Didemnum sp. In Different Habitats and the Species Potential to Impact Ecological Communities in Long Island Sound*

A research study to assess the relative growth of the invasive colonial ascidian *Didemnum* sp. under different environmental conditions such as different depths, salinities, and coastal land use patterns.

**University of New Haven - Multiple Municipalities Affected: Statewide**

**\$24,899.00**  
**1997**

Project Fully Complete? Yes

*An Assessment of Imaging Technologies for Mapping Shallow Water Habitats Along the Connecticut Coast*

A study to evaluate the merits of three technical imaging techniques to determine shallow water coastal habitats for the purpose of finding the most economical and effective way to establish the populations and distribution of marine fisheries species along the state's coast.

**University of New Haven - Multiple Municipalities Affected: Housatonic River Valley**      **\$24,537.86**      Project Fully      Yes  
**1999**      Complete?

*Habitat Utilization by Fish and Invertebrates in Phragmites and Spartina Marshes on the Housatonic River*

A research project to quantify utilization of *Phragmites* and *Spartina alterniflora* dominated marsh habitat by fish and invertebrate species on the lower Housatonic River, and to test the hypothesis that decreased flooding and a smaller number of tidal creeks within a *Phragmites* monoculture reduces habitat quality and affects feeding habits of nekton species. A component of the study is cataloging distribution of habitat type, as defined by flooding, vegetation, and abundance of creeks, in a GIS database for use as a management and education tool for the lower Housatonic River Estuary.

**William H. Moorhead, III - Connecticut River**      **\$24,700.00**      Project Fully      Yes  
**2005**      Complete?

*Modeling, Mapping, and Monitoring the Complex Mosaic of Plant Biodiversity of a Brackish Tidal Wetland, Ragged Rock Creek, Connecticut River*

A research study to describe, model, and map the plant biodiversity of Ragged Rock Creek tidal marshes, using advanced remote-sensing techniques and modern analysis as a means to quantify the complex mosaic of a large brackish marsh tidal system.

**Yale University - Branford**      **\$24,915.88**      Project Fully      Yes  
**2005**      Complete?

*Restoration of River Herring to Pisgah Brook and Linsley Pond; Patterns of Population Recovery and Ecological Effects*

A research and outreach study in the Linsley Pond, Pisgah Brook watershed to support river herring restoration efforts and expand research to understand patterns of population recovery during restoration, and to assess the impact of restored river herring populations on local ecological processes.

**Yale University - Branford Rivers**      **\$24,752.00**      Project Fully      Yes  
**2005**      Complete?

*Refractory Nitrogen in Discharges and Streams*

A research study to evaluate the potential for refractory nitrogen in sewage treatment effluent and unpolluted streams to cause hypoxia.

**Yale University - Multiple Municipalities Affected: New Haven, West Haven** **\$27,485.00** Project Fully Complete? Yes

*West River Biological Inventory*

An inventory to acquire baseline data on existing floral and fauna communities of the West River Memorial Park salt marsh, a coastal watershed system in New Haven.

**Yale University - Multiple Municipalities Affected: Connecticut River** **\$24,293.00** Project Fully Complete? Yes

*The Impact of Phragmites australis on Plant Community and Nutrient Dynamics in the Connecticut River Tidal Marsh Ecosystem*

Investigation of the processes used by *Phragmites australis*, or Common Reed, to invade and dominate tidal marshes in Connecticut, specifically exploring the relationship between nutrient cycling within the marsh and competitive plant dominance. Information collected by the researchers may be used to assist resource managers in effectively managing coastal resources to ensure necessary plant diversity.

**Yale University - Multiple Municipalities Affected: Connecticut River** **\$23,000.00** Project Fully Complete? Yes

*Genetic Structuring of Phragmites australis in the Tidelands of the Connecticut River.*

A study of the genetic structure of common reed, comparing historic samples with modern day samples to determine whether or not there is a genetic variance between the two, and ultimately providing valuable information which may be used in designing tidal wetland restoration projects.

**Yale University - Multiple Municipalities Affected: Connecticut River (Lower Valley)** **\$16,354.40** Project Fully Complete? Yes

*Impacts of Docks on Submerged Aquatic Vegetation*

A study to evaluate the impacts of docks, moorings and boating activity on submerged aquatic vegetation of the lower tidal Connecticut River.

**Yale University - Quinnipiac & Naugatuck Rivers** **\$24,975.00** Project Fully Complete? Yes

*Isotopic Nitrogen and Oxygen Ratios in Nitrates Delivered to Long Island Sound*

A research study to test the utility of using isotopic signatures for identifying sources of nitrate to Long Island Sound in the Quinnipiac and Naugatuck River watersheds.

**Yale University - Statewide**

**\$25,000.00**  
**2008**

Project Fully Complete? Yes

*Efficiency of Standard Storm Water Best Management Practices for Nitrogen Removal*

A research study to measure untreated stormwater nitrogen (N) concentrations at 15 municipal stormwater sites to determine whether there are consistently high N stormwater sites; assess Best Management Practices (BMP) performance with both low N and high N stormwater through measurements of influent and effluent flow and N concentration; and extrapolation of data to address the question of whether these BMP's are effective enough to realistically achieve a 10% reduction target.

**Yale University, Dept. of Geology and Geophysics - Milford**

**\$20,932.70**  
**2000**

Project Fully Complete? Yes

*An Investigation of the Benthos at Milford Point and its Relationship to Migratory Shorebird Foraging Activities*

A detailed sampling study of benthic organisms at Milford Point and their relationship to foraging migratory shorebirds.

**Yale University, Forestry & Environmental Studies - New Haven**

**\$5,206.00**  
**2000**

Project Fully Complete? Yes

*West River Fish Ladder Feasibility Study*

A study of anadromous fish usage of the West River in New Haven to provide baseline data prior to the construction of a fishway over Pond Lily Dam.

**Number of Projects: 57**

**LISF Amount Awarded for These Projects: \$1,200,101.96**

[Long Island Sound License Plate Program](#)