

## Priority Habitats

The Long Island Sound Study Habitat Restoration Initiative has identified 12 priority habitats to restore. These habitats are:

- > Beaches and dunes
- > Cliffs and bluffs
- > Estuarine embayments
- > Coastal and island forests
- > Freshwater wetlands
- > Coastal grasslands
- > Intertidal flats
- > Rocky intertidal
- > Riverine migratory corridors
- > Submerged aquatic vegetation
- > Shellfish reefs
- > Tidal wetlands

For more information about these habitats, visit:  
[www.longislandsoundstudy.net/habitatrestoration](http://www.longislandsoundstudy.net/habitatrestoration)

At the Web site you can also read an on-line version of the Initiative's **Technical Support for Coastal Habitat Restoration**.



Diamondback terrapin in a sandy habitat in Oyster Bay, NY.

## What is the Long Island Sound Study?

Authorized by Congress in 1985, the Long Island Sound Study (LISS) is a collaborative effort to restore and protect the Sound. Partners include federal, state, interstate, and local government agencies as well as industries, universities, and environmental organizations. The Habitat Restoration Initiative is a LISS program that uses partnerships to help restore the Sound's coastal habitats.

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# Partners in RESTORING THE COAST



High school volunteers with a Westchester County parks curator planting American beachgrass (*Ammophila breviligulata*) at Edith Read Natural Park and Wildlife Sanctuary in Rye, New York.



The Long Island Sound Study's Habitat Restoration Initiative makes a difference by restoring valuable coastal habitats in Connecticut and New York.

## The Case for Restoration

For centuries, the people of New York and Connecticut have enjoyed the bounty of Long Island Sound. We have used its waters to fish, swim, and boat, and we have been drawn to its coastline for the scenic view. But we also have left our footprint here. By building homes and businesses along the Sound's shore and tributaries, we have destroyed or degraded the marshes, woodlands, and other habitats relied upon by the very plants and animals that we treasure.

These natural habitats also help protect our homes and communities. Dunes and salt marshes, for example, are the first line of defense against coastal flooding caused by storms. They also help minimize coastal erosion caused by heavy surf by absorbing and dampening wave energy, as do other habitat types such as rocky shorelines, oyster beds, and eelgrass beds.

Restoring habitats enhances our natural areas and helps to sustain the fish and wildlife populations of the Sound. That is why in 1998 Connecticut, New York and the federal government created the **Habitat Restoration Initiative**. The Initiative uses a collaborative approach to identify, plan, and coordinate critical habitat restoration projects around the Sound. Almost 600 acres of coastal habitat and more than 100 miles of river passage have been restored through Initiative partnerships.



Heron resting in a tidal marsh near Long Wharf Beach, New Haven.

## Fish and Wildlife in the Estuary

Long Island Sound is an estuary, the unique place where fresh water from rivers mixes with the saltwater of the ocean. More than 1,200 species of invertebrates, 170 species of fish, and dozens of species of migratory birds have adapted to the habitats in the Sound's estuarine environment.

Tidal wetlands, for example, are habitats that provide food, shelter, nesting, and breeding grounds for birds, shellfish, snails, crabs, and small fish. Larger fish, such as bluefish and striped bass, in turn prey on these smaller animals. So do large coastal birds such as ospreys and egrets. Beaches, another estuarine habitat, provide nesting sites for shorebirds, such as piping plovers and least terns, and diamondback terrapins, a turtle found only in brackish waters. And restored rivers allow anadromous fish such as striped bass, salmon, and alewife to migrate from the Sound to spawn in fresh water upstream.

If these habitats are degraded or destroyed so are the populations of fish, birds, and animals that depend on them for their survival. Laws have been enacted to prevent habitats from being developed, but more can be done. Opportunities also exist to restore and protect degraded lands and waters.

[www.longislandsoundstudy.net/habitatrestoration](http://www.longislandsoundstudy.net/habitatrestoration)

## Case study: Lynde Point Peninsula

In the 1940s 25 acres of wetland at the Lynde Point Peninsula in Old Saybrook, Connecticut were destroyed when the site had been filled with sediment dredged from the Connecticut River. In 2003, state Department of Environmental Protection crews began excavating the dredged material, removing invasive plants, and creating small ponds and creeks to help restore the saltwater conditions favored by *Spartina alterniflora*, a marsh grass. The marsh grasses are reestablishing themselves through seeds present in the soil or carried in by the tides from neighboring marshes. The grasses and ponds will provide valuable habitat, and should enhance the lower Connecticut River Valley's role as an important stopover for migratory waterfowl.

Restoration projects are best accomplished through partnerships. At Lynde Point, partners who helped provide funding, staff, and expertise included the Borough of Fenwick, Lynde Point Land Trust, Ducks Unlimited, the Connecticut Department of Environmental Protection, the National Oceanic and Atmospheric Administration, the Natural Resources Conservation Service, the Connecticut Corporate Wetlands Restoration Program, and the U.S. Fish and Wildlife Service. Lynde Point was listed as a priority restoration site by the Habitat Restoration Initiative.



Removal of the dredged material helps restore the brackish conditions under which saltmarsh cordgrass *Spartina alterniflora* (inset), thrives.