

Freshwater Marsh / Wetlands Program

Grades K-6

Mercy's Marsh

Long Island's Geology:

Beneath the surface of L.I. lie trillions of gallons of water which fill the pore spaces between the sand and gravel that make our island. The upper surface is known as the Water Table. Our marsh sits on the low lying surface of the land where the water table becomes exposed forming a wetland.

60 million years ago, L.I. was a delta, or outlet area, where draining North American rivers and streams deposited sediment. 21,000 years ago continental glaciers began melting and depositing sediment at different levels forming hilly terrain and outwash plains (North shore/South shore). Ice blocks were buried and then melted forming pockets of water known to us as an aquifer.

Mercy's Marsh is unique as all marshes are. All of the plants and animals have adapted to this area because of the vegetation present, to the chemistry of the water, and the nature of the bottom sediment.

Our marsh is considered a **Palustrine** wetland because the sediment is highly organic and consists of varying amount of clay, silt, and sand.

Marshes can also be broken down further into 2 groups called **Fens**: **Rich fens** have an abundant of nutrients in the water. **Poor fens** have very little nutrient content.

How does our marsh look?

During a drought period: Extremely low water levels expose the edge of the marsh allowing rare species of plants to flourish. Trees and woody plants will also thrive, shading and crowding out the rare specimens.

During a normal period: The shore of the marsh becomes submerged again drowning out the woody plants and rare species. However, the rare plants are inactive until the next drought period.

L.I.'s Pine Barren region contains the highest concentration of rare, threatened, and endangered species of plants and animals in New York State. All of L.I.'s wetlands are protected by the NYS Freshwater Wetlands Act to ensure their continued existence.

DATA SHEET

Date: _____

Weather conditions: _____

Marsh Status: _____

Group #: _____

Marsh Section: _____

Water Quality

Temperature: _____

Visibility: _____

Scale 1 - 5: 1 = No visibility 5 = Clear view to bottom

Plankton Present? _____

Depth: _____

Bottom Sample(Y/N) _____

Results:

Test Results (levels):

Turbidity: None Low Med High

pH: _____ Acidic Neutral Basic

Dissolved O₂: _____ mg/L

Soil Quality:

Temperature: _____

Visible layers: _____

pH: _____

Seine Results:

Plants: _____

Animals: _____

Questions & Answers

1. What type of Marsh is the Mercy Marsh?
 - A) Mineralized
 - B) Low Mineral
 - C) Seasonal

2. Rich Fen or Poor Fen? (Circle the answer)

Based on observations and recorded data, Please create a food chain diagram for the Mercy Marsh: