

Final Report

To: The Hudson River Foundation

From: The Museum of the Hudson Highlands

For: A Living Exhibit Titled
 The Hudson River
 a biological filter at work

Date: November 30, 1991

This new exhibit was installed in August 1991 and has more than lived up to our expectations. Not only is this exhibit of great interest to museum visitors it is also utilized by museum staff in education programs as well as the interpretation of our Hudson River Restoration Program.

Enclosed are copies of all the interpretive labels in this exhibit as well as a few newspaper clippings of the opening. Under separate cover are black and white photos of the exhibit for you to use as you wish as well as our final payment request and the necessary certification from our treasurer.

The purpose of this project is the installation of a museum exhibit with related programs that will explain to a diverse audience how the river performs the biological work that keeps the water clean, supports a coastal fishery of great importance and provides recreational opportunities for millions of people. The exhibit is titled "The Hudson River a biological filter at work". It contains an assortment of living organisms such as phytoplankton, daphnia, mussels, gammarus, grass shrimp, barnacles, small fish, etc. Models, dioramas, and graphics have been used to demonstrate the many dynamic but largely unseen interactions occurring in the Hudson River. The interpretive theme and context of this exhibition is that tidal marshes, bottomland forests and natural shorelines are not simply bird sanctuaries or scenic vistas but rather, vital components of our region's life support system that are operating as biological filters by decomposing sewage, binding toxics, deactivating contaminants and improving water quality in many ways. Museum exhibits are an effective means of influencing public perceptions because they are viewed by a wide audience and a variety of supplementary programs can be developed around them. Annual attendance at the Museum of the Hudson Highlands averages 30,000 with outreach programs at about 20,000. Cable T.V. companies cover our exhibit openings and programs and substantially expand the audience. This exhibit has been installed as a permanent exhibit in the Museum's auditorium/gallery. A hand painted mural of the Hudson's shoreline, high marsh and tidal creek provides the background for the various components. The live specimens are exhibited in their respective habitats in this mural.

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The sequence of interpretation follows the natural web of life, beginning with sunlight as the source of energy for photosynthesis in aquatic plants and phytoplankton. The grazing food chain is then presented with phytoplankton, zooplankton (2 daphnia culture) and mussels relative to their position in water column. The submergent plant zone is represented with live aquatic plants.

The center of the exhibit contains a black willow tree and a diorama of high marsh and low marsh with models and preserved specimens of marsh rose-mallow, cattail, wildrice, bulrush, pickerelweed, arrow arum, bur reed, a black duck, muskrat and house wren. The final phase of the exhibit portrays the detritus based food chain with a living gammarous colony feeding on cattail and Three square vegetation and a display of grass shrimp, barnacles and sticklebacks.

Magnifying glasses hang beside the exhibits of zooplankton, grass shrimp, barnacles, gammarous and submergent plants for close up and exploratory viewing. A step is built into the exhibit for use by children. Two small dioramas, one of shad fishermen tending a shad net and one of the salt front are built into the mural. While this exhibit is fully labeled for self guiding, it also is used by staff to explain various aspects of Hudson River ecology to groups and school classes.