

## PRESS RELEASE

**The River Project**  
Pier 26, New York, NY 100  
Phone: 212-431-5787

E-mail: [river\\_project@mindspring.com](mailto:river_project@mindspring.com)  
URL: [www.riverproject.com](http://www.riverproject.com)  
PI and Contact: Cathy Drew, director

### **The River Project Receives Grant To Assess Biodiversity in New York Harbor**

#### **Data Will Help Determine Replacement Material for Harbor's Piers, Docks, and Bulkheads**

(New York, April 22, 2002)—The River Project has received a \$99,006 grant from the Hudson River Foundation for an experimental study of colonizing invertebrates. The return of these organisms, now repopulating New York Harbor portion of the Hudson Estuary after decades of successful water quality management, poses both a threat and a promise. The grant for “Assessment of Population Levels, Biodiversity, and Design of Substrates that Maximize Colonization in New York Harbor: An Experimental Study” will enable The River Project to research and document the the Harbor’s colonial populations.

Much of New York Harbor’s infrastructure is made of wood, which is vulnerable to accelerated deterioration by marine borers such as shipworms and gribbles that metabolize wood. Virtually the entire infrastructure of the Harbor, including hundreds of docks and bulkheads, made up of hundreds of thousands of pilings, are undergoing destruction and will have to be replaced over the next two decades.

One of the River Project’s goals is to help determine the best material to replace the wood. Requirements include strength, durability, impenetrability to borers, and cost effectiveness. Two replacement materials currently used and recommended for new structures include: steel coated with a tar-based anticorrosion polymer, which contains substances that repel attachment by any form of life; and cement, which can sustain flora and fauna. Although slightly more expensive than coated steel, cement is called “bio-attractive” by the authors of this study. The study will quantify colonization on a variety of materials that fit the criteria for replacing wood and will provide the data to the harbor’s planners, managers, builders, and shore-side operators.

“One person’s ‘fouling’ is another person’s biodiversity,” says Dr. Jeff Levinton, professor, Ecology and Evolution, SUNY, Stony Brook, who is a co-principal investigator for the study. The River Project’s Founder and Executive Director Cathy Drew, the other co-principal investigator, points out that, “In any case, decisions about future building materials cannot be made without data.”

Despite the deleterious impact on the harbor's infrastructure, the return of these species is a sign of rejuvenation in the Hudson Estuary. By the time the Clean Water Act was passed thirty years ago, New York Harbor water quality was severely degraded due to industrial pollution, run-off from agriculture and household uses, and the wholesale discharge of raw sewage into Hudson receiving waters throughout much of the 20th century. Since the Act was passed, much has improved. Growing populations of colonial organisms represent reestablishment of a healthy estuarine food web and include species prized by humans, such as the oyster.

These organisms are important both because they sustain larger animals such as diverse and numerous fish stocks and because they filter and clarify the water. "We have removed from New York Harbor the more productive areas of an estuarine habitat, such as mud flats, beaches, rocky shores, and wetlands. However, docks, wharfs, and pilings can be seen as vertical 'habitats' that, if colonized by marine flora and fauna, would significantly upgrade the health of the harbor," explained Dr. Levinton.

The River Project study commences at an opportune moment for the Harbor's future. In Manhattan, Hudson River Park is scheduled for construction over the next five years; throughout the Harbor general upgrading of the docks and shorelines is occurring. The River Project is currently seeking funding for an outreach component to their study, with the goal of increasing public awareness of biodiversity in the lower food webs, the efficacy of filter feeding organisms, and "blue infrastructure."

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The River Project is a private, nonprofit marine biology field station dedicated to the protection and restoration of wildlife through science, including research, education, and hands-on programs in urban ecology. Located on Pier 26 in downtown New York City, The River Project offers direct access to a natural learning center: the inter-pier and under-pier habitats of Manhattan's West Side waterfront. The River Project's facilities are used to study estuarine conditions and marine life in New York Harbor and to offer visitors of all ages interpretation and a close up introduction to the living features of the Hudson River Estuary.

The programs of The River Project reflect the concern of the city, particularly West Side communities, in maintaining the natural resources of the Estuary. Increasing awareness of these resources begins with activities that bring residents and visitors in direct contact with the river and its ecosystem and encourage their involvement in preserving species and their habitats.