

# Hudson River Reserve Education is Change on the Ground for New York State



2016

## Connecting



4,838 acres of outdoor classroom

2,562 visitors

Norrie Point Environmental Center



## Preparing

693 teachers trained

6,924 students engaged

17,310 student contact hours

## Improving



44 partner organizations

819 citizen scientists activated

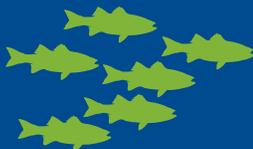
3,008 volunteer hours

92,074 eels passed above barriers

*"Besides spending time at the dam, which was beautiful and refreshing, it felt good to be working on an issue that would benefit the environment. With all of the negativity today, it was a simple pleasure to be working on something positive."*

Ron Derven  
Piermont Resident

*"This course gave me the inspiration to use natural resources within the classroom. I plan to use this workshop as a model with other teachers."*



## Community Action Gives Eels a Lift

American glass eels migrate from the Atlantic to the fresh waters of the Hudson River each year and are critical members of the aquatic ecosystem. Over the past century, however, dams like the one on Sparkill Creek in Piermont have become serious obstacles in their journey. This led local citizens to work with the Hudson River Reserve and partners on an innovative solution—an "eelevator" to transport eels over the dam and on their way.

That locals would want to give eels a lift on the journey is due in part to the Hudson River Eel Project. Supported by 44 partner organizations, this project builds awareness of environmental issues and trains volunteers to monitor the eel population. Since 2008, thousands of Hudson Valley citizens of all ages have caught, counted, and released more than 500,000 juvenile eels at 14 sites, from Staten Island to Hudson River tributaries near Albany.

## Teachers Bring the Outside In

In an estuary, teachable moments are everywhere, if you know where and how to look. The Hudson River Reserve's Teachers on the Estuary Program (TOTE) gets teachers out of classroom and into wetlands where they can explore, restore native plants, integrate art and science topics, and develop lesson plans to take back to their students.

Through TOTE and other workshops, the Hudson River Reserve introduces hundreds of classroom teachers and informal educators to the basics of estuary science, environmental monitoring and stewardship, and the science and impacts of climate change each year. Use of the Hudson River Environmental Conditions Observing System (HRECOS) in the classroom is an increasingly popular way for educators to get technology, real-time data, and critical thinking into their river curriculum. A little more here about impact of this.

New York's Hudson River Reserve is one of 29 sites in the National Estuarine Research Reserve System. Each site is a state federal partnership that combines research, monitoring, and education to advance the understanding and management of estuarine environments.



Department of  
Environmental  
Conservation



# National Estuarine Research Reserve Education Change on the Ground in 2017

## Connects

People to Estuaries

**1 million+**  
**ACRES**

of natural classrooms & living laboratories with



**28 INTERPRETIVE CENTERS**



**650,340 VISITORS**

learn about estuaries through Research Reserve outreach & education



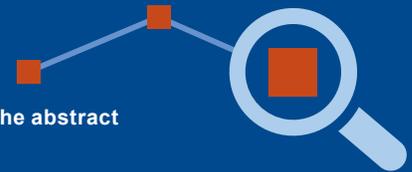
*Aloha to our Hawai'i Reserve, designated in 2017!*

## Prepares

the Next Generation

**87,899 STUDENTS**

take learning out of the abstract & into the outdoors



**3,079 TEACHERS**

are trained in the estuary & supported in the classroom



### SKILLS BUILT

- ✓ Observation
- ✓ Asking research questions
- ✓ Problem solving
- ✓ Data driven decision making

ESTUARY SCIENCE

LOCAL DATA

LAB WORK

FIELD INVESTIGATION

## Improves

the Environment

**12,849 CITIZENS**

are trained & inspired to protect their coasts & estuaries



### VOLUNTEER ACTIONS

- ✓ Protect wildlife
- ✓ Monitor water quality
- ✓ Plant native species
- ✓ Clean up the coasts

**28 RESEARCH RESERVE EDUCATORS**

lead programs that foster coastal stewardship in communities in 23 states



Creating value through education  
39,035 volunteer hours = \$942,305\*