

National Estuarine Research Reserve Education Change on the Ground in 2019

Connects

People to Estuaries

1 million+
ACRES

of natural classrooms & living laboratories with



29 INTERPRETIVE CENTERS



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



613,152 VISITORS

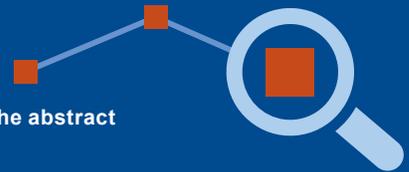
learn about estuaries through Research Reserve outreach & education

Prepares

the Next Generation

93,916 STUDENTS

take learning out of the abstract & into the outdoors



4,784 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

13,704 CITIZENS

are trained & inspired to protect their coasts & estuaries



VOLUNTEER ACTIONS

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

29 RESEARCH RESERVE EDUCATORS

lead programs that foster coastal stewardship in communities in 23 states



Creating value through education
32,000 volunteer hours = \$753,920

Waquoit Bay Research Reserve Education is Change on the Ground



2019

Connect



3,000 acres of land and water
2,500 program participants
Visitor Center exhibits



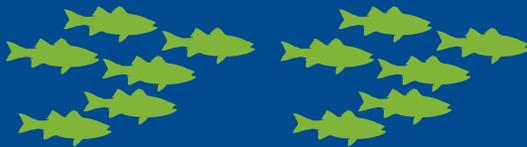
Prepare

145 teachers trained
3,145 students engaged
134 college students engaged

Improve



46 education volunteers
665 education volunteer hours



“Best post graduate class I have ever taken.”

“I’m less apprehensive of hands on science and more open to less structured experiences and experimentation.”

“This workshop should be a part of all MA STEM teacher training, and I would highly recommend it to informal environmental education organizations as well.”

—Teacher on The Estuary Training Participants

Supporting Teachers in a Pandemic

When COVID-19 broke, the Waquoit Bay Reserve’s education staff jumped into action with “Step away from the screen! Helping students do real science in their own backyards.” This well-attended webinar explored ways to get students outside, while still conforming to social distancing guidelines. The webinar was so well-received, more professional development trainings are in the pipeline to support teachers as they face new challenges. The Reserve also added a section on remote learning resources to their website: waquoitbayreserve.org/education-programs/

Our Next Generation of Resilient Citizens

Second grade and high school students alike get to witness coastal erosion—and learn about the science behind it—at the Waquoit Bay Reserve.

Second graders start with a tour of the grounds and the shoreline, where they can examine the effects of erosion, including a severely eroding bluff. They learn to identify the ways that waterfront property owners try to prevent erosion, including water bars, water gardens, plantings, jetties, and building further away from the shore. Paint trays, sand, and water let students test designs to “protect their shorelines,” leading to a lot of fun and excitement as homes tumble into the sea or a sponge-based marsh saves the day.

High school field trips introduce students to the Reserves’ Sentinel Site, where they can learn how vegetation changes in response to sea level rise, and why the Reserve is studying the effects of adding sediment to marsh plots in hopes of increasing salt marsh resilience.

Landscaping for Community Resilience

The Reserve partnered with Cape Cod Cooperative Extension and the Association to Preserve Cape Cod to offer landscaping for resilience workshops on “Taming Rainwater” and “All about the Trees.” The workshops were so popular with community members they have been offered multiple times at the Waquoit Bay Reserve.

Massachusetts’ Waquoit Bay 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.

