

North Carolina Research Reserve Education is Change on the Ground



2022

Connect



1,409 students learned about estuaries



Prepare

62 teachers enhanced their estuarine literacy

Improve



162 *Spartina* plants were planted by students

"Seeds to Shoreline is such a wonderful program! It gives students a chance to learn about estuaries, their importance, and marsh restoration by utilizing a variety of growing techniques and scientific strategies. This program is very hands-on and enjoyed by all involved."

Judy Compton
4th grade teacher
Central Park School For Children



Students

The Rachel Carson site and Masonboro Island site of the North Carolina National Estuarine Research Reserve serve as perfect spots for students to learn all about estuaries and their importance. Each year, hundreds of students from around North Carolina visit these sites for a hands-on experience they will never forget. Each trip is tailored to the grade level's science curriculum standards and allows the students to see, smell, and touch all the components that make North Carolina's estuaries so unique.

Teachers

The goal of the teacher professional development workshops is to provide K-12 teachers and environmental educators with a dynamic learning experience based on estuarine and marine science to help foster coastal environmental stewardship and informed decision-making. Workshops are aligned with the North Carolina Standard Course of Study, Ocean Literacy Concepts, and National Education Standards. Participants learn information and concepts about estuaries, the National Estuarine Research Reserve System, the North Carolina coast, and current estuarine research. Participants experience field-based explorations and activities to integrate into their learning environment.

Seeds to Shoreline

Seeds to Shoreline is a hands-on restoration project designed for teachers and students to grow *Spartina alterniflora* (smooth cordgrass) plants in their classrooms. Through obtaining seeds, cultivating them at their school, and then planting them on Reserve property, students learn how this plant serves a crucial role in North Carolina's estuaries. *Spartina* is critical to North Carolina's habitats for shoreline stabilization and nursery habitat.

North Carolina Reserve is one of 30 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.



National Estuarine Research Reserve Education

Change on the Ground in 2022

Connects

People to Estuaries

**1 million+
ACRES**

of natural classrooms & living laboratories with



**26 INTERPRETIVE
CENTERS**



Hello to the Connecticut Reserve, designated in 2022!



**296,131
VISITORS**

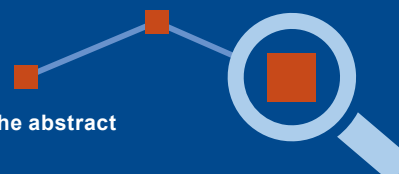
learn about estuaries through Research Reserve outreach & education

Prepares

the Next Generation

**54,773
STUDENTS**

take learning out of the abstract & into the outdoors



**4,347
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

**10,570
CITIZENS**

are trained & inspired to protect their coasts & estuaries



VOLUNTEER ACTIONS

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

**30 RESEARCH RESERVE
EDUCATORS**

lead programs that foster coastal stewardship in communities in 25 states



Creating value through education
37,371 volunteer hours = \$1,119,261*