

Chesapeake Bay Research Reserve

Education is Change on the Ground



2022

Connect



10,000+ acres of protected land & water

85,671 visitors

3 distinct interpretive centers



Prepare

333 teachers trained

3,680 students engaged

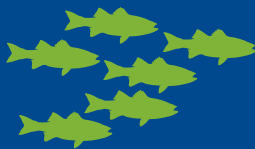
14,720 student contact hours

Improve



8,913 citizen scientists activated

4,920 volunteer hours



"I will be long-term planning additional ways to get students' outside. I have realized that the process does not need to all happen in a week but could be several field trips and schoolyard investigations over the course of a year. It has inspired me to give more freedom to my students."

TOTE 2022 Evaluation

"Thank you for a great week! I really needed this time with other science educators to sustain me through the coming school year."

TOTE 2022 Evaluation

Education for Climate Action through a Mid-Atlantic Partnership

To expand the Reserve's commitment to climate change education, Chesapeake Bay National Estuarine Research Reserve (NERR) in Maryland collaborated on a leadership team to coordinate a regional forum to advance education for climate action. Joining forces with other reserves within the mid-Atlantic, NOAA Chesapeake Bay Office and Delaware Sea Grant, the team supported a two day event to learn and share about the state of education for climate action and more intentionally build a community of diverse partners to uplift work under the regional partnership. What emerged from the forum are a series of working groups that are convening on a regular basis to propel conversations and work forward in these specific spaces. This model creates the space for shared power and decision making for future conferences and initiatives led under the Mid-Atlantic Climate Change Conference (MACCEC) name.

Teachers on the Estuary Explores Social-Emotional Learning as Part of Meaningful Watershed Education Experiences

How can Meaningful Watershed Education Experiences (MWEE) support social-emotional learning and wellness for students and teachers? When there is mindful engagement with the environment and field investigations lead to awareness and responsible behavior! Teachers on the Estuary (TOTE) modeled a MWEE in a unique way: with immersive, joyful, and emotionally supportive extensions. Why? Because science has more meaning to society when it's hands-on, and can incorporate the five Social-Emotional Learning (SEL) skills: Self-Awareness, Self-Management, Responsible Decision-Making, Social Awareness, and Relationship Skills.

Renaming Places to Honor the Past

The Jug Bay Farm Preserve was acquired by Anne Arundel County Department of Recreation and Parks in 2004 from the Riggleman Family. It includes 307 acres of forest, fields, meadows, vernal pools, creeks, shoreline, a small vineyard, pier, and two houses more than 150 years old. This property will be renamed the "Emory Waters Nature Preserve" to honor the life and cultural heritage of Mr. Emory Waters and all African Americans who worked and lived within Jug Bay and the Patuxent River Watershed. The Emory Waters Nature Preserve is the future home of the Jug Bay Education and Research Center.

Maryland's Chesapeake Bay 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**

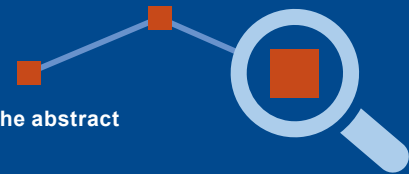
learn about estuaries through Research Reserve outreach & education

Prepares

the Next Generation

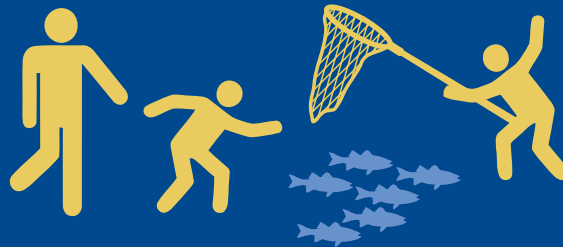
**54,773
STUDENTS**

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*