Making CH\(\text{A}G\)ES

Grand Bay National Estuarine Research Reserve (NERR) is home to ecosystems that undergo constant change due to selective pressures, requiring continuous application of management, monitoring, and restoration. This presents a perfect opportunity to educate high school students about ecological processes and applicable restoration practices. Grand Bay NERR was awarded a National Academy of Sciences Capacity Building grant for science education, for a program entitled "Conceptualizing Human Alterations and Natural Growth in Estuaries and Savannas" (CH\(\text{A}G\)ES). Our scientists and educators collaborated with local teachers to develop scientifically accurate, high quality lesson plans, and programming aligned with state and national science education standards. This hands-on education program took place in local classrooms and included two field days at Grand Bay NERR. During the program, we saw 250 students for 3,924.5 student contact hours and 18 teachers and teaching assistants for 227.5 teacher contact hours. Since the CH\(\text{A}G\)ES program, we've adapted and incorporated lessons and activities for students as young as 5th graders in our K-12 On the Road Program, working with over 200 more students.

Celebrate the Gulf

Celebrate the Gulf Marine Education Festival was first established in 1991 to teach residents and visitors about the importance of the Gulf of Mexico. The festival is held the first Saturday in April in Pass Christian, MS, and is free for the community. Our 30+ exhibitors all bring different activities for families to learn about everything from our upland habitats and wildlife to the recreational opportunities and commercial services that the Gulf of Mexico provides. Exhibitors include state and federal agencies, non-profits, universities, and industrial partners. Visitors can stroll through our Student Art Exhibition to see local children's artwork, or talk to our Student Science Showcase winners and learn about their endeavors as student scientists working on projects in the community. Visitors can meet the winning artist of the annual poster contest and leave with a signed print. Families also enjoy our live animal shows, a dress-up photo booth, and hand-done family portraits by professional caricature artists. In 2022, more than 5,800 people came to celebrate our Gulf!
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

30 RESEARCH RESERVES
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

ESTUARY SCIENCE LOCAL DATA LAB WORK FIELD INVESTIGATION

SKILLS BUILT
✓ Observation
✓ Asking research questions
✓ Problem solving
✓ Data driven decision making

Improves
the Environment

10,570 CITIZENS
are trained & inspired to protect their coasts & estuaries

30 RESEARCH RESERVE EDUCATORS
lead programs that foster coastal stewardship in communities in 25 states

coast.noaa.gov/estuaries

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

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

*Value of a volunteer hour is calculated at $29.95 based on data from the Independent Sector.