Old Woman Creek
Research Reserve
Education is
Change on the
Ground

Students Acquire New Skills

Students from two local high school biology programs participated in a new inquiry-based residential education program at Old Woman Creek National Estuarine Research Reserve (OWC NERR) in 2017. This in-depth, hands-on program allowed students to learn in the field alongside researchers who were collecting real-time data to be used in a biological assessment of fish health and diversity at the Reserve.

The students spent one to two nights in the on-site dormitory, providing the opportunity to put their newly acquired skills into action on the estuary. Over two weekends, the Reserve hosted 20 high school students for a total of 200 contact hours. The students were able to develop their field research skills, and many expressed that the experience helped solidify their education choices and planned career paths. The Reserve used the data in spring fish population surveys, making this a mutually beneficial partnership.

Citizen Scientists at Work

Old Woman Creek’s Phenological Species Monitoring Program tracks keystone species that are indicators of the Reserve’s unique estuarine environment. In order to successfully implement this program, the Reserve relies on the dedicated work of many citizen science volunteers. In 2017, volunteers donated 910 hours of time in monitoring the Reserve’s designated species.

Each winter and spring, the volunteers observe Old Woman Creek’s active Bald Eagle nest several days per week, record their observations, and send the data to the monitoring program coordinator. This information helps the reserve correlate Bald Eagle nesting activity with climate-related data. Each summer and fall, volunteers paddle out bi-weekly to the muskrat huts in the estuary to record the dimensions, vegetation composition, and status of each hut found. These data help the reserve understand the dynamic between a keystone aquatic fur-bearer and the dynamic water levels of the estuary, as well as the impact on wetland vegetation. In addition to these two species, citizen science volunteers also monitor secretive marsh birds, the Northern Ravine Salamander, seven species of frogs and toads, and Eastern Blue Birds and Tree Swallows.

“Most people go to the beach to swim…biology kids go to the beach to search for otoliths.”
Seth
High School Senior

“As I learned (or re-learned) more about Lake Erie, I felt increased pride for the sense of stewardship toward the lake.”
Teacher Cuyahoga County

Ohio’s Old Woman Creek 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.
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

29 RESEARCH RESERVES

650,340 VISITORS learn about estuaries through Research Reserve outreach & education

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

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

ESTUARY SCIENCE LOCAL DATA LAB WORK FIELD INVESTIGATION

SKILLS BUILT

Observation
Asking research questions
Problem solving
Data driven decision making

Improves
the Environment

12,849 CITIZENS are trained & inspired to protect their coasts & estuaries

28 RESEARCH RESERVE EDUCATORS lead programs that foster coastal stewardship in communities in 23 states

VOLUNTEER ACTIONS

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

*Value of a volunteer hour is calculated at $24.14 based on data from the Independent Sector.

cost.noaa.gov/estuaries