

Padilla Bay Research Reserve Education is Change on the Ground



2022

Connect



9,000 acres of eelgrass habitat
8,000 visitors
Breazeale Interpretive Center



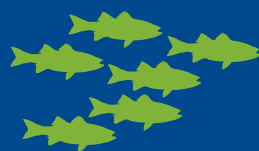
Prepare

123 teachers trained
4,182 students engaged
13,320 student contact hours

Improve



72 citizen scientists activated



Prior to this workshop, I had no idea where to start to teach my students about climate change and ocean acidification. Now I have high quality resources and tools to help me teach this critical material. Thank you!

Teachers explore climate data

Middle and high school teachers are bringing climate science into their classroom thanks to Padilla Bay's teacher trainings. Teachers gain a clear understanding of the connections between CO2 emissions and global effects like warming climate, sea level rise, and ocean acidification. The workshops include experiments showing carbon moving through living systems, model-building to connect cause and effect, and data activities with student-generated data, local weather data and global online data. Scientists from neighboring Swinomish Tribal Community and our local shellfish grower offer a broad perspective on ocean acidification and its effects on cultural resources and the local economy.

Salish Sea Stewards

Local community members learn about coastal habitats and local environmental issues, and offer their volunteer time in return. Padilla Bay education staff work with the county Marine Resources Committee to provide 40 hours of training on topics like estuary habitats, invasive species, changing climate, and current research. We then connect the newly trained community scientists with local organizations and projects. These highly motivated volunteers have given over 44,000 hours of service to protect our coastal resources and have initiated many of their own research and monitoring projects.

Kids on the Beach

Padilla Bay's Kids on the Beach program teaches science practices to middle school students. Students in grades 6-8 prepare scientific proposals and design a research project. Over the course of a week, they prepare field journals for data collection, collect field data, research historical data, conduct data analysis, and present their results at a science symposium. These students studied the impact of a restoration project on forage fish spawning



Washington State's Padilla 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

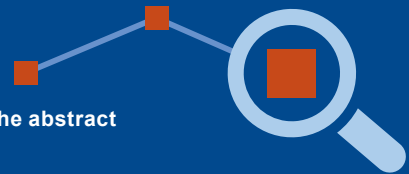
learn about estuaries through Research Reserve outreach & education

Prepares

the Next Generation

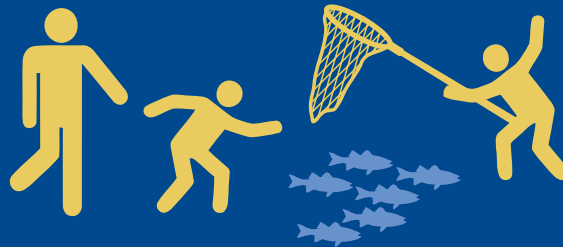
54,773 STUDENTS

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*