

# Jacques Cousteau Research Reserve

## Education is Change on the Ground



2022

### Connect



786 people engaged through public outreach  
1,023 visitors



### Prepare

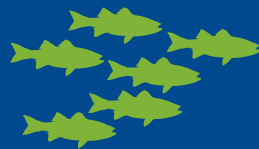
110 teachers reached  
354 students engaged

### Improve



818 volunteer hours

*"I appreciate their (JC NERR and the NJ Sea Grant Consortium) time and expertise in communicating ways to engage students in the process of scientific inquiry and discovery. My gratitude to them and to the other educators attending this event."*



*"Always awesome and inspiring!"*

2022 TOTE Teacher

2022 TOTE Teacher

## Teaching about New Jersey's Estuaries, from Top to Bottom

With some help from our partners at the New Jersey Sea Grant Consortium (NJS GC), the Jacques Cousteau Reserve conducted its first hybrid Teachers on the Estuary (TOTE) workshop in 2022. Eighteen formal and informal educators participated in (online and in-person) activities about salt marsh ecosystem services, common flora and fauna of salt marshes, water quality, coastal acidification, and Environmental DNA (eDNA). The main component of TOTE 2022 is teachers had the unique experience of exploring not just one estuary, but two! They visited New Jersey's Jacques Cousteau estuary and the Hudson-Raritan estuary along the border of New Jersey and New York. Teachers performed comparative studies at each estuary including: seining, plankton and soil sampling, and vegetation transects. Over the last two years, TOTE had to be conducted strictly online due to COVID-19 policies. This year, Education Coordinator, Kaitlin Gannon was excited to have mostly in-person activities involving a lot of estuary exploration and partner collaboration.

### Jacques Cousteau National Estuarine Research Reserve Intern Making Science Accessible to Everyone

In 2022, The Jacques Cousteau National Estuarine Research Reserve (JC NERR) hosted three summer interns through the Louis Stokes Alliance for Minority Participation (LSAMP) program. One of the intern projects conducted by student Celin Escobar-Gonzalez, focused on climate change and diversity, equity, inclusion, justice and accessibility (DEIJA). New Jersey is experiencing various climate change hazards and sought to better understand how these hazards impact all communities along the coast. Celin reached out to educators and community leaders of nearby underserved coastal communities to hear local perspectives regarding climate change, climate change hazards that are of most concern to residents, and how the JC NERR might support climate change education and resiliency projects in schools. There is still much work and learning to do; Celin's efforts are a great first step towards addressing DEIJA, local climate change impacts and resiliency.

New Jersey's Jacques Cousteau 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**

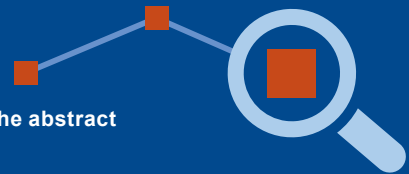
learn about estuaries through Research Reserve outreach & education

## Prepares

the Next Generation

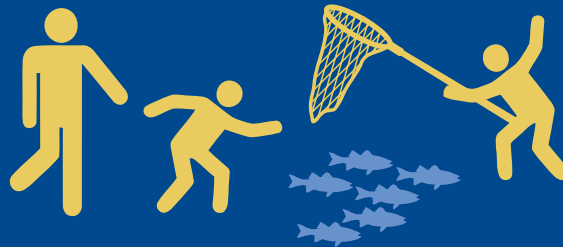
**54,773  
STUDENTS**

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\*