



**BILION
OYSTER
PROJECT**

**2023
ANNUAL REPORT**

*Restoring oyster reefs to New York Harbor
through public education initiatives*

Achievements to date

Since 2014...

122 million oysters have been reintroduced to New York Harbor

19 acres of three-dimensional oyster reef habitat have been restored to New York Harbor

2.5M pounds of shell have been reclaimed from NYC restaurants

19K volunteers have been engaged by the project



This year at a glance

In 2023, **Billion Oyster Project** connected **14,500 people** from communities throughout **New York City** to our restoration and education initiatives through volunteering, hands-on engagement at our field stations, water quality sampling, monitoring oyster research stations, and tabling at public events.

Our Education team engaged over **9,000 New York City students** this year. Oyster stewardship along the New York Harbor waterfront happened via recruitment tours, field experiences, days of service, classroom workshops/presentations, and the Annual Student Symposium.

Billion Oyster Project was fortunate to welcome two VIP visitors to Governors Island this year. In February, **Yo-Yo Ma** visited our staff and Harbor School students on Governors Island. Then, this September, **Prince William** spent two hours touring our facilities and wading into our Field Station in Brooklyn Bridge Park.

Thank you for your support this year! We hope you enjoy reviewing what we've accomplished together.





New York City now has 4 oyster reefs, each covering more than an acre of Harbor bottom



Head of Bay | 15M OYSTERS | 1 acre

Introduced in 2016; expanded in 2023

A large-scale oyster larvae seeding project not far from JFK Airport. Building off a small installation in 2016, this reef is designed to jumpstart a self-sustaining oyster population.

Mario Cuomo/Tappan Zee | 6M+ OYSTERS RECRUITED* | 5 acres

Introduced in 2017

A large-scale mitigation project led by the Hudson River Foundation and contractors from the NY Thruway Authority. This multi-acre reef installation, made up of reef balls and gabions filled with unseeded shell, was designed to identify ideal structures for existing oyster larvae to set on and form reef habitat.

Soundview Reefs | 22M OYSTERS | 5 acres

Introduced in 2020; oysters were added in 2021 and 2022

A five-acre oyster reef funded by the New York State Department of Environmental Conservation. This collaborative restoration project was designed to jumpstart a self-sustaining oyster population and build up reef habitat for wild oyster recruitment.

Tribeca Habitat Enhancement Project | 15M OYSTERS | 1 acre

2021, expanded in 2023

The Hudson River Park Trust designed and installed this inter-pier habitat enhancement project and contracted Billion Oyster Project to supply seeded shells and reef structures. A total of 15 million oysters were added to the Hudson River over two deployments in 2021 and 2023.

**Recruitment refers to the settlement of wild oysters on shells and reef structures deployed by Billion Oyster Project and our partners.*



Shell Collection Program

In 2023, we collected 322,000 pounds of shell from 75 restaurants in New York City.

In what turned out to be a challenging year for the restaurant industry, we were lucky enough to add 12 new restaurant partners to our Shell Collection Program! Support from Talisker Single Malt Scotch Whisky continues to make it possible for Billion Oyster Project and The Lobster Place to collect roughly 6,000 pounds of shell per week.

Approximately 37,000 pounds of shell — cleaned and processed by volunteers — were deployed this year at various Billion Oyster Project reef sites, including expansion installations in Hudson River Park's Estuarine Sanctuary and at Head of Bay in Queens.



Updates around the Harbor

Head of Bay oyster installation: this summer Lauren Scala and NBC News joined us for the introduction of **15 million oysters** to Head of Bay – not far from JFK Airport – with the help of New York Harbor School students and alumni.

Like trees in a forest, oysters and their reefs are revitalizing the floor of New York Harbor – filtering the water column of pollutants and providing habitat for wildlife to thrive in.

Harbor School student service trips: Nearly 40 students from Vessel Operations, Professional Diving, Aquaculture, and club members from Harbor Corps attended hands-on service trips to Fishers Island Oyster Farm and Lake Sebago.

Yankees collaboration in the Bronx: in early November, Billion Oyster Project teamed up with the New York Yankees, New York State Parks and Oris to host nearly 50 students from PS 274 and IS229. These public school students joined us at the edge of New York Harbor to measure and monitor oysters, identify local marine species, and play "Spat Tag!" 🍷 ⚾️



9th Annual Billion Oyster Project Student Symposium

The annual Billion Oyster Project Student Symposium culminates a year of learning for NYC students – offering an opportunity for them to share the results of BOP-inspired research. This year's event was hosted on Governors Island on Friday, June 2. We also carried on the tradition of offering freshly shucked oysters to participants!

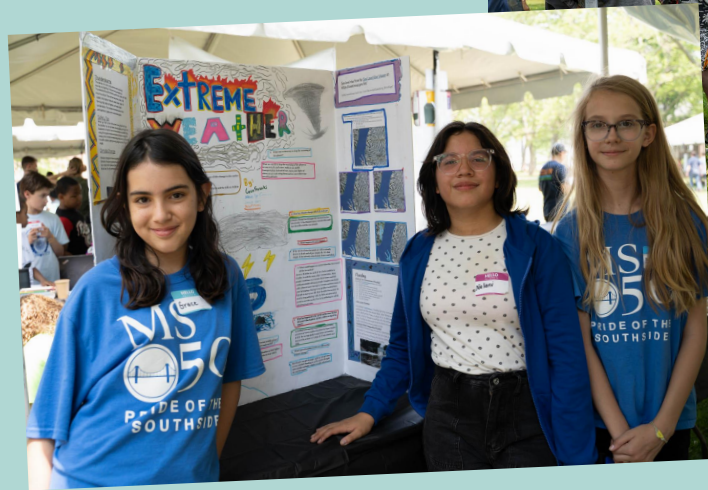
352 students

120 projects

36 teachers

28 schools

The 2nd Annual Sci-posium, on Thursday, June 1, was a virtual showcase and networking event for community scientists working on the harbor and estuary-themed projects and data-based advocacy.



Direct Student Services

This year, our Education team sought to increase student exposure to New York Harbor, oyster restoration, environmental science, and hands-on learning – with an emphasis on students from Title 1 schools.

Program successes included:

- **Engaging 3,299 students** through recruitment tours, field experiences, days of service, classroom workshops/presentations, and the Annual Student Symposium.
- Engaging 73 schools, with **81% being Public and Charter Schools with Title 1 status** or that have an Economic Need Index above 70.
- Deepened relationships with NYC teachers and schools; developed relationships with City Council offices and representatives.



Curriculum & Professional Learning for Teachers

Billion Oyster Project offers Professional Development workshops, webinars, trainings, and curriculum geared toward New York City teachers. These free or low-cost events and resources are designed to empower and retain partner teachers, particularly in schools with high numbers of students from low-income households.

Between July 2022 and June 2023:

- **226 teachers**, each representing approx. 30 students, attended a Billion Oyster Project professional learning or used our curricular services.
- An estimated **6,780 students** used Billion Oyster Project resources.
- **177 teachers** participated in **27 Professional Learning events** this school year
- An Oyster Research Station Investigation (15 lessons) was launched on the Digital Platform (data.bop.nyc)

*“The resources were very helpful and it was also helpful to get in touch with the educators who created them to help me choose which ones were best suited to my classroom since it was **overwhelming at first navigating** all of them without having access to a tank or research station.”*



New York Harbor School Happenings

Harbor School students completed **82 internships during the 2022-23 school year**. Of those internships, **24 were with Billion Oyster Project** and included interns from seven Career & Technical Education (CTE) Programs.

Welding & Fabrication was approved by the NY State Education Department as Harbor School's eighth CTE program.

On Friday, December 8, 2023, the Harbor School and Billion Oyster Project hosted **95 marine and maritime industry experts** for the annual Professional Advisory Committee Meeting.

In Fall 2023, Harbor School bid farewell to long-time Principal Jeff Chetirko, who transitioned to NYCDOE's Office of Student Pathways, and welcomed Interim Acting Principal Aneal Helms.



Field Stations Program

Billion Oyster Project has **nine active Field Stations** where we have oyster structures, funding for engagement, and regularly host scheduled programming.

In 2023, we engaged 1,952 participants through 83 events at Field Stations, showcasing the power of collaboration with partners, schools, community-based organizations, Billion Oyster Project Ambassadors, and the New York Harbor School. Those participants included: 1125 students, 197 teachers, and 469 community members.

"BOP staff thoroughly answered all questions and I learned a lot!"

"I had so much fun today! this was one of my favorite experiences!"

"Loved the ability to be hands on and learn"

"I loved the presenters - very knowledgeable. The hands-on activities were a lot of fun. Enjoyed this trip immensely."

"I enjoyed the water walking and my snail aka Turbo"



Community Science: Oyster Research Stations

Billion Oyster Project engages students, teachers, and community members in hands-on environmental restoration and stewardship at the water's edge through our Oyster Research Station (ORS) Program. Each cage, housing roughly 30 live oysters, is a shared experimental laboratory. Attached to a dock, bulkhead, or floating buoy, each ORS builds community through data collection!

This year, we **installed 32 ORSs and expanded our program to 4 new sites** along the New York City waterfront. Our family of community scientists, educators, and ambassadors has grown, each new member contributing their passion and dedication to the stewardship of our harbor. This season we hosted 7 ORS training sessions from our Williamsburg Field Station in Brooklyn, empowering more New Yorkers to actively participate in our goal to restore 1 billion oysters to New York Harbor by 2035.

This year, we received 350 datasheets, across 105 monitoring days, from ORS stewards!



Community Science: Water Quality

Billion Oyster Project leads the [Community Water Quality Testing \(CWQT\) Program](#) – a long-running dataset of New York Harbor water quality that can inform the connection between rainfall and sewage pollution. Collection of this data, funded by Two Trees, is intended to help identify human risk of exposure to pathogens when engaging in recreational activities and/or working in the water.

This year, we:

- Teamed up with CWQT 11 partner labs, universities, high schools, and 30+ community scientists to test water samples from 88 locations – up from 69 sites in 2022 – [on a weekly basis](#) from May-October
- Monitored sewage pollution via fecal indicator bacteria
- Performed additional testing at three East River sites near our Williamsburg Field Station and water quality lab from January through October
- Supported student and community researchers



Volunteer Program

In 2023, we hosted 131 public volunteer events at which 1,559 public volunteers donated 7,085 hours of time! Volunteers cleaned shell, filled supertrays (pictured right), and fabricated oyster structures like Gabions and Oyster Research Stations.

Billion Oyster Project Ambassadors are long-term volunteers who have attended at least 3 public volunteer events and have also completed at least one training in reef monitoring and/or ORS maintenance.

This year, we trained 66 Ambassadors at 5 training events. These individuals — 30 of whom were returning Ambassadors — participated in 42 working events across Billion Oyster Project's field season.

Check out these before-and-after shots of a beach cleanup at Kaiser Park along Coney Island Creek. Over the course of the 2023 Volunteer season, 8,310 lbs of debris was removed from this shoreline.



Corporate Volunteers

Corporate volunteer days allow companies to gain hands-on experience and knowledge of oyster restoration while building camaraderie with their team and spending a day outside supporting Billion Oyster Project.

In 2023, we hosted 72 corporate volunteer days, engaging 1,790 people from 65 organizations who contributed a combined 3,580 hours of service.

2023 volunteer projects included fabricating mesh inserts for a new installation at the Gansevoort peninsula and cleaning recycled oyster shell for use in upcoming restoration work.

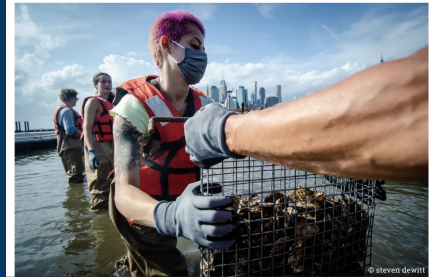
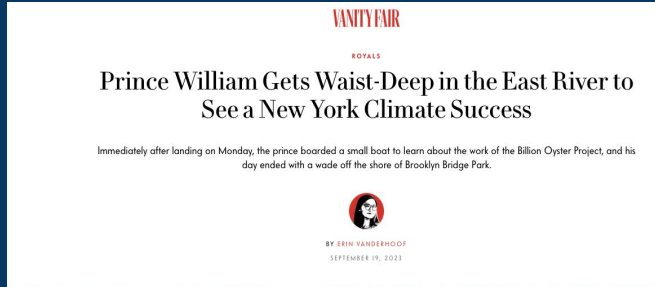
During our corporate volunteer events, we educate participants on our mission through a deep dive tour of our facilities on Governors Island and share information about our impact to date with the goal of strengthening these partnerships.



Billion Oyster Project in the News

- Brooklyn Magazine
- CBS News New York
- Civil Eats
- Gothamist
- National Geographic
- NBC New York
- PBS
- The New York Times
- TIME Magazine
- The TODAY Show
- Vanity Fair

See a full list on our [Press page](#).



Social Media Highlights

Across all channels **Compared to last year*

100k

Highest Organic Impressions per Single Post (all time)

↑ 220%

6.5K

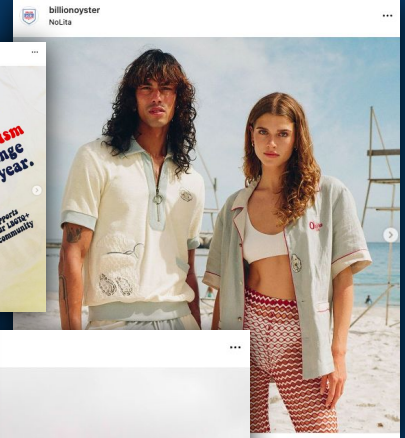
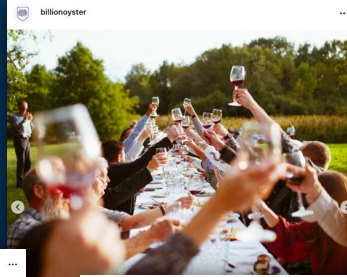
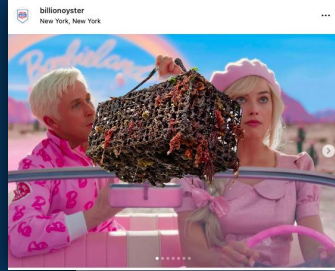
Highest Engagement per single post (all time)

↑ 300%

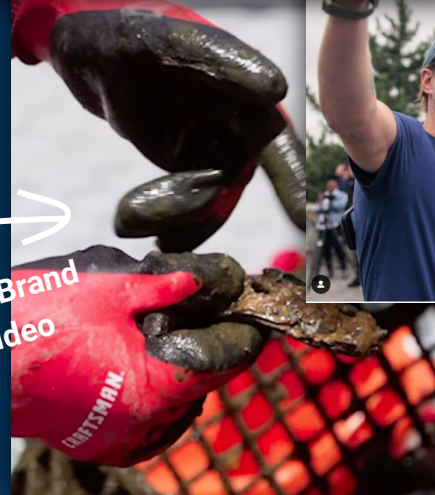
8K

New Audience Members

↑ 16.1%



New Brand Video



BILLION OYSTER PARTY

Nearly 2,000 guests joined us for the largest Billion Oyster Party to date! The event wrapped up Climate Week on Friday, Sept. 22, at Building 269 in the Brooklyn Navy Yard. The Billion Oyster Party (aka "Oyster Prom") is the ultimate oyster-eating celebration and education experience!



Guests interacted with 45 oyster farmers and chefs from 22 top NYC restaurants that participate in our shell collection program, while enjoying live music and learning more about our work. This year, NYC Department of Education Chancellor David Banks joined our Executive Director on stage to recognize Billion Oyster Project's positive impact on New York City students.

Looking ahead to 2024

Long Island Sound Futures Fund

In November 2023, Billion Oyster Project was granted \$435,000 from the National Fish & Wildlife Foundation. This funding will provide a potential pathway to restore upwards of 10 acres of oyster reef through:

- Oyster restoration site assessments and designs in Queens and the Bronx.
- Engaging community groups to identify ideal locations for oyster restoration.

Big changes on Governors Island

- Billion Oyster Project's new headquarters will be opening in a beautifully renovated house in Governors Island's Nolan Park. We can't wait to welcome the public to this historic, hands-on space.
- A "[living laboratory](#)" for [climate solutions](#) is coming to Governors Island! Although construction isn't slated to begin until 2025, we are lucky to be a partner in this massive initiative led by Stony Brook University and the Trust for Governors Island.

