

# Tiny Oysters Do a BIG Job

Kids are bringing back nature's cleanup crew.

By Lela Nargi

On a gray, windy day, 40 middle-school students stand on a pier over the Harlem River in New York City. They stare down into the brown water. Their teacher, Mr. Rodman, pulls a long, slimy rope out of the river. “Stand back!” he calls. Attached to the end of the rope is a metal cage. He swings it over the railing. Inside are clusters of small shelled animals—oysters.

Today, the students are also scientists. They are studying the growth of the oysters. The last time they were here, seven months ago, the oysters were babies. “They looked like tiny little pebbles,” says an eighth-grader named George.

The students’ job is to measure how much the oysters

have grown and test the river water for pollutants. The students will report their findings to researchers at the Billion Oyster Project (BOP).

Why work so hard for oysters? To make the city’s waterways healthy again.

## Helpful Mollusks

Oysters are mollusks, soft-bodied animals that have no skeletons. Slugs and snails are mollusks. So are clams and squid. An oyster is a type of mollusk that grows its own shell made of two oval-shaped parts

that can snap shut for protection.

These animals are important for the underwater community they share with plants, fish, and other life. They are food for crabs and other animals. As new oysters grow, they attach their shells to older ones, forming big reefs with many small spaces where other animals live. Oysters eat algae. If algae grow too fast, they can deplete oxygen from the water—and even fish need oxygen to breathe!

Because so many animals depend on them, oysters are called a keystone species.





**Bianca and Karina use a caliper to measure an oyster.**

If a keystone species disappears, other plants and animals may die off and not grow back.

That's exactly what happened 100 years ago in New York Harbor—a group of rivers and bays around New York City. Before then, lots of oysters lived in these waters. The oysters were famous! They were shipped to restaurants around the world. People in New York could buy

**People were eating oysters faster than the mollusks could grow.**

them from street carts.

The oysters were delicious—maybe *too* delicious. By the early 1900s, people were eating them faster than they could grow.

The oysters were in trouble for another reason. Pollution was pouring into the waters of the growing city. The harbor became so polluted that few types of animals could live in it. Since the 1970s, new laws have helped reduce toxic waste. Some fish, like shad, started to swim through again. But oysters were still missing—until recently.

### Scientists at Work

The kids on the Harlem River gather around the cage. “The oysters definitely look much bigger now,” says a student named Kelly.

A student named Bianca picks out a clump of the animals. Karina, her identical twin, measures an oyster using a caliper, which is like a ruler with straight fingers. She reads the number out loud, and Bianca writes it on a chart.

Taking turns, the kids measure all the oysters, then compare notes. The biggest oyster is over 2 inches long, much bigger than a pebble and a healthy size for its age.

Kelly likes seeing how much the oysters have grown, but she's also disappointed: “I thought they'd be bigger.”

The students then pull up buckets of water and check to see how cloudy the water is. Too much sediment (bits of sand, clay, and other things) can block sunlight and stop helpful plants



## Growing a Billion Oysters

**The Billion Oyster Project began in 2014 to help bring oysters back to New York Harbor. The project has recruited more than 6,500 students at more than 100 middle schools and high schools to help grow, distribute, and study the animals. So far, students and volunteers have placed about 25,000,000 oysters into the harbor.**

from growing. The students also measure the level of oxygen. As more oysters grow, the water should become clearer and hold more oxygen. Also, other animals should move in. The students check the oyster cage and find mud crabs and barnacles.

**Why bring back the oysters? To make the city's waterways healthy again.**

Finally, the students put the oysters back in the cage. Mr. Rodman lowers it into the river. In a few months, a new group of students will check the cage again. When the oysters are big enough, they will be moved to join a healthy reef in the middle of the harbor.

For today, everyone agrees: the future is looking bright for New York Harbor. 🌱