

New York Sea Grant is a joint program of Cornell University, the State University of New York, and the National Oceanic and Atmospheric Administration (NOAA).

New York State has 3,400 miles of diverse coastline and is the only state in the U.S. bordering both the Great Lakes and Atlantic Ocean. More than 85% of NY's population lives in a coastal region.



New York Sea Grant regional offices provide innovative research, technical assistance, and outreach on such issues as water quality, coastal resilience, marine & freshwater fisheries, invasive species, algal blooms, aquaculture & seafood, coastal literacy, and shoreline community development.

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NYSG Focus Area for this project summary: Healthy New York Coastal Ecosystems

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## **Microplastics Awareness Outreach in New York**

A New York Sea Grant-Columbia University collaboration is addressing microplastic pollution from textiles with diverse audiences.

Microplastics are found nearly everywhere scientists look – from remote geographical areas such as Antarctica and the Mariana Trench to everyday items such as bottled water. Increasing research on micro- and nano-plastics in human bodies raises concerns about their potential health effects. Clothing sheds tiny pieces of plastic often referred to as microfibers into laundry wastewater and dryer exhaust, with synthetic fibers such as



Microfiber plastics under the microscope at a NYSG exhibit at a Lamont-Doherty Earth Observatory Open House event, Palisades, NY. Photo: Catherine Prunella/NYSG

polyester and nylon persisting in waterways without breaking down.

New York Sea Grant (NYSG) and Columbia University are collaborating to address microplastic pollution from textiles. Researchers at Columbia are developing advanced filtration technology to capture microplastics from laundry while NYSG engages the public to raise awareness of this emerging contaminant issue.

In 2024, NYSG conducted interviews in New York City laundromats to shape educational resources on microplastics. The findings informed the creation of a factsheet. At a fall teachers' conference hosted by the New York City Department of Environmental Protection, NYSG trained K-12 teachers to sample laundry water for microplastics. Written feedback from 33 workshop participants revealed that 52% learned clothing and laundry are major sources of microplastic pollution, and 42% were eager to incorporate a microplastic sampling activity into their classrooms. Additionally, NYSG shared the sampling activity at 11 community events across NY to foster increased public awareness of microplastic pollution. Learn more at www.nyseagrant.org/marinedebris.

This collaborative project is funded by the National Oceanic and Atmospheric Administration's Marine Debris Grand Challenge Competition via the Bipartisan Infrastructure Investment and Jobs Act.

## **Project Partners/Funders:**

- Columbia University's Lamont-Doherty Earth Observatory
- North Carolina Sea Grant
- North Carolina State University
- Stony Brook University
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