



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 NY Coastal Ecosystems**

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## Bridging Research to Action to Reduce Plastic Pollution

*NYSG strives to preserve and restore the health of coastal and aquatic ecosystems through innovative research and collaboration for the benefit of present and future generations*

**M**arine debris is a complex global and local problem that degrades human and ecosystem health. Marine debris has many sources, ranging from derelict vessels to micro-fibers. Plastics are ubiquitous in everyday life and largely end up in oceans. In 2022, the National Oceanic and Atmospheric Administration (NOAA) launched the Marine Debris Challenge Competition with funds from the Bipartisan Infrastructure Investment and Jobs Act (BIL).



*NYSG's Jake Anderson and RIT's Dr. Christy Tyler sorting and categorizing stormwater-derived marine debris captured with Littatrap technology. Photo: RIT*

New York Sea Grant (NYSG) was awarded \$5.2 million through a National Sea Grant marine debris funding opportunity for three projects: one each in the New York City, Hudson River Estuary, and Rochester areas. The projects are studying the removal of plastics from laundry systems, surface waters, and stormwater catch basins respectively and are designed to reduce plastic pollution in rivers, lakes, and oceans.

Microfibers shed during the laundry process are an increasing concern for human and environmental health. NYSG hired an Extension Specialist to work with researchers at Columbia University and underserved communities in NYC to foster awareness of microfibers and develop remediation solutions.

In the Hudson River estuary, NYSG will partner with PolyGone Systems to pilot a device that removes microplastics from surface waters. NYSG's role will include facilitating community connections, convening an advisory community of local stakeholders, and creating outreach and education materials about marine debris for Hudson River estuary stakeholders.

NYSG is assisting researchers from the Rochester Institute of Technology with implementing storm drain trash-capturing technology to remove debris from Lake Ontario and surrounding watersheds. NYSG outreach and extension in environmental justice areas aims to spark local interest in removal of anthropogenic debris from Lake Ontario.

### Project Partners:

- Rochester Institute of Technology • NOAA • Monroe County Department of Environmental Services • City of Rochester Departments of Recreation and Human Services and Environmental Services • Seneca Park Zoo • Rochester Museum and Science Center • H2OHero
- Shawn Goburn/SRG Management Firm • Council of the Great Lakes Region
- PolyGone Systems • Center for the Urban River at Beczak • Columbia University
- Stony Brook University • North Carolina State University • North Carolina Sea Grant