



FOR IMMEDIATE RELEASE

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### **Research Results Link Microplastic Pollution to Potential Impacts on Aquatic Environmental Health**

*NY/NJ Baykeeper and Rutgers University Release Peer-Reviewed Results of the First Study Evaluating the Presence of Microplastic in New Jersey's Freshwaters*

Matawan NJ (January 3, 2018) — NY/NJ Baykeeper and the Rutgers Center for Urban Environmental Sustainability (CUES) partnered to document the presence of plastic and associated environmental impacts in urban freshwater rivers, a field not well understood due to a lack of research. Research results were published in *AIMS Environmental Science*, a peer-reviewed journal.

[Click here](#) to access the journal article.

Research results indicate that contaminants known as Persistent Organic Pollutants (POPs), are mobile and can attach to plastic. Aquatic animals may ingest plastic and their attached POPs, causing growth abnormalities. Plastic and POPs may move up the food chain.

A snapshot of results:

- Embryonic fish suffered heart defects and growth abnormalities after being exposed to plastic compounds.
- Microplastics were found in all samples, consisting of the following
  - 38% fragments (breakdown from larger plastic items)

- 30% foam (breakdown from cups and takeout boxes, commonly referred to as Styrofoam)
- 16% line (fiber, filament)
- 13% film (breakdown from bags, wrappers)
- 2% pellets (microbeads from personal care products and pre-production plastic pellets).
- Identified Persistent Organic Pollutants (POPs) that attach themselves to plastic or are otherwise floating in the water.

A total of 45 surface water samples were collected at 15 locations throughout the Raritan and Passaic River watersheds in 2016.

“As shocking documentation of plastics in our waterways continues to make headlines, we must reevaluate our relationship with single-use plastic and urge our elected leaders to pass aggressive waste reduction legislation including a polystyrene ban and plastic bag fee,” said Sandra Meola, NY/NJ Baykeeper Communications and Outreach Director. “Microplastics have been documented in fin fish and shellfish tissues, suggesting that microplastics also have the potential to move into human food chains.”

“This research indicates microplastic pollution is ubiquitous in the Raritan and Passaic River watersheds,” said Dr. Beth Ravit. “The Rutgers Environmental & Occupational Health Sciences Institute (EOHSI) and chemists at NOAA laboratories identified organic pollutants associated with the plastic particles and the polymers that make up the various plastic fragments. Additional research is needed to determine how microplastics and their associated compounds may be affecting environmental and human health.”

The public can help reduce and prevent plastic pollution from entering local waterways by replacing single-use plastics with sustainable, reusable materials. NY/NJ Baykeeper encourages the public to get involved in local cleanup efforts along with contacting their elected officials in support of plastic-reducing legislation.

Research was supported by the US Environmental Protection Agency Urban Waters program, the New Jersey Water Resources Research Institute, Cooperative State Research, Education, and Extension Services, the National Institute of Environmental Health Sciences, the Geraldine R. Dodge Foundation, and the Fund for New Jersey.

**About [NY/NJ Baykeeper](#)**

NY/NJ Baykeeper is the citizen advocate of the NY-NJ Harbor Estuary. Since 1989, it has worked to protect, preserve, and restore the environment of the most urban estuary on Earth to benefit its natural and human communities. Through Estuary-wide programs NY/NJ Baykeeper seeks to end pollution, improve public access, conserve and restore public lands, restore aquatic habitats, encourage appropriate and discourage inappropriate development, carry out public education, and work with federal and state regulators and citizen groups as partners in planning a sustainable future for the NY-NJ Harbor Estuary.

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Protecting, preserving, and restoring the NY/NJ Harbor Estuary since 1989.  
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