



FOR IMMEDIATE RELEASE: How much plastic is in your river? Ottawa Riverkeeper conducting first-ever study of microplastic pollution on the Ottawa River

OTTAWA, ON: August 24, 2016 – This morning Ottawa Riverkeeper held a live demonstration of the first-ever microplastic sampling on the Ottawa River, part of our ongoing study of microplastic pollution in the watershed. With the buildings of Parliament as a backdrop, Ottawa Riverkeeper’s Staff Scientist and collaborating researchers from Carleton University took samples of surface water to test the extent of microplastic pollution in Canada’s most recently designated Heritage River.

“Microplastic pollution is rampant in our oceans, and recent studies of inland waterways clearly indicate that the problem also extends to our lakes and rivers. However, the extent of the issue in the Ottawa River has never been examined,” said Dr. Meaghan Murphy, Staff Scientist at Ottawa Riverkeeper.

The study, which is ongoing over the course of the summer, aims to fill the gaps in that knowledge. In collaboration with Dr. Jesse Vermaire at Carleton University and with assistance from more than twenty citizen scientist volunteers from Ottawa Riverkeeper’s Riverwatch program, we are testing locations spanning over 550 km of river, from Lake Timiskaming in the north to Hudson, Quebec near the mouth of the river. So far the study has found microplastics in every sample that has been taken, a result which Dr. Murphy describes as “troubling.”

Microplastics – defined as plastic fragments, fibres, and microbeads of less than 5mm in diameter – have a significant negative impact on our aquatic ecosystems. They don’t decompose, they are easily carried by currents to new areas, and they are too small for most water treatment plants to filter them, making them difficult to clean up. Worryingly, aquatic organisms often ingest microplastics and can transfer them up the food chain, which is especially problematic as plastics also absorb and concentrate many pollutants present in the natural environment.

The federal government recognizes the problems posed by microplastics in our waters: on June 29, 2016, microbeads (a type of microplastic) were added to the List of Toxic Substances under the Canadian Environmental Protection Act, with draft regulations on a ban expected this fall. However, this legislation only covers microbeads in personal care products used to exfoliate or cleanse, leaving out other sources of microplastics, such as fibres from synthetic clothing and degraded fragments from larger plastic waste – which is in part because those plastics do not necessarily come from sources that are easy to regulate.

That’s where Ottawa Riverkeeper comes in. “We want to know how big the microplastic problem is in Canada’s capital river, and to investigate the types of microplastics and potential sources of plastics in our watershed, in order to work towards a plastic-free Ottawa River,” said Dr. Murphy. “Knowledge is power. When you know there’s a problem and can measure it, that spurs action and stewardship. Our goals are to educate people on the ways they can reduce

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plastic in our waterways and to put pressure on the federal government to pass the microbead ban in a timely fashion, bringing it into effect as soon as possible.”

Ottawa Riverkeeper has employed a two-pronged approach in the study. The first was to conduct a survey throughout the watershed, using hand-held testing kits that filtered 100L of water through a special filter paper. Volunteers from the Riverwatch program were trained on methodology in June 2016 and brought the kits home with them to sample their part of the watershed. Their results were then returned to Dr. Jesse Vermaire for analysis.

This morning’s testing involved a second method, which has been ongoing for the past two weeks: the deployment of a manta trawl, which is being used to test both up- and downriver of Ottawa’s sewage treatment facilities. The trawl, a large net system with a fine mesh net that attaches to the back of a motorboat, is used to collect surface water samples for scientific study. It allows the filtration of large volumes of water to test for different microplastic concentrations above and below the treatment plants. Dr. Vermaire’s team will also be analyzing the results from the manta trawl; taken all together, this study will give us a preliminary understanding of the extent of microplastic pollution in the Ottawa River, and is an important first step in our continuing research on microplastic pollution in our watershed.

Ottawa Riverkeeper is grateful to all our sponsors, collaborators, and volunteers: without their assistance, we would not have been able to carry out a study of this magnitude. Funding was provided by the Ottawa Wave Makers grant program created by Impact Hub Ottawa and World Wildlife Fund Canada, and the Muskoka Brewery & Evergreen Fresh Water Grant Program. We are also grateful to the 5 Gyres Institute for the loan of the manta trawl, to the Ottawa Rowing Club for granting us access to the river and providing a boat and driver for our media demonstration, and to our volunteers from the Riverwatch program, whose tireless commitment to the watershed is an inspiration to us all.

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About Ottawa Riverkeeper:

Ottawa Riverkeeper is a citizen-based action group that brings people together to protect and promote the ecological health and diversity of the Ottawa River and its tributaries. Expert and independent, our organization advocates for responsible decision-making, public education, participation, access to information, and compliance with protective regulations, for the benefit of our river and our communities.

Ottawa Riverkeeper is a licensed member of [Waterkeeper Alliance](#), an international grassroots advocacy organization, founded by Robert F. Kennedy Jr.

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