

NEW PHD PROJECT STARTING IN JANUARY OR MAY 2018

Clothing – A Significant Source of Microfibres & Contaminants to the Environment?

Project Synopsis:

Clothing sheds fibres, which if synthetic, are persistent in the environment. Evidence shows that clothes laundering results in fibre loss and is a pathway for fibres to enter the waste water stream and ultimately surface waters. Concern is mounting about the effects of these microfibers on fish and other aquatic biota (Rochman et al. 2013, Sci Rep 3: 3263).

Chemical contaminants are also released from clothing during laundering (Sanai et al. 2016, Environ Sci Technol 50: 9289-9297). Some contaminants accumulate in clothing from indoor environments and others are intentionally added. As with the microfibers, a fraction of these contaminants ultimately enters surface waters where they can pose a risk to aquatic biota.

The goal of this project is to investigate the amounts and factors related to the release of microfibers and contaminants from clothing. The contaminants of interest are flame retardants and perfluoroalkylated substances (PFASs). This project is part of a larger study that aims to quantify the extent of, and potential impacts from, microfibers and associated contaminants on Great Lakes fish.

PhD Opportunity

- ✓ Co-supervised by Miriam Diamond and Chelsea Rochman at University of Toronto, Liisa Jantunen and Amila de Silva at Environment and Climate Change Canada
- ✓ Funding available for four years.
- ✓ Requires MSc or equivalent in chemistry, chemical engineering or a related program.
- ✓ Assets: Knowledge of contaminant analysis using GC-MS.
- ✓ Start date January 2018

To Apply

Please send brief cover letter, CV and transcripts (BSc, MSc or equivalents) to:

Miriam Diamond

Department of Earth Sciences

University of Toronto

Email: miriam.diamond@utoronto.ca; Phone: 416 978-1586

<http://www.miriamldiamond.com/>