Two PhD positions available at UQAR-ISMER

Project

- Plastic pollution is a concern because of the global distribution of plastics in the environment and the adverse effects that plastics may pose to ecosystems, wildlife, and human health. Plastic pollution does not represent a single contaminant, but rather a "cocktail" of contaminants including physical pieces of plastics and a suite of plastic-associated chemicals that may be leached to the environment (e.g., plasticizers, flame retardants, and stabilizers). However, the knowledge of environmental processes of microplastics (MPs; plastics<5mm) and plastic additives is limited. This project aims to investigate the occurrence and fate of MPs and selected plastic additives in the St. Lawrence River and Estuary (SLRE) and understand the exposure of wildlife to these contaminants. The project is part of a collaborative program with McGill University, the University of Lethbridge, Environment and Climate Change Canada and the University of Southern Mississippi. Students will have opportunities to interact with other labs.

- PhD 1 will study the atmospheric deposition of MPs and plastic additives and characterize these contaminants in the air and water of the SLRE (supervisor: Dr. Zhe Lu; co-supervisor: Dr. Huixiang Xie).

- PhD 2 will investigate MPs and plastic additives in various bird and fish species of SLRE to understand the exposure risks and elucidate the relationships between MPs and plastic additives contamination in these species (supervisor: Dr. Zhe Lu; co-supervisor: Dr. Dominique Robert).

Start date

- Autumn semester 2021 (late August / early September 2021).

Financial aid

- Full financial support in the form of scholarship for four years ($22,000 CAD/year).

Qualification requirements

- Meet the basic requirements for admission to the doctoral program in oceanography at UQAR (https://www.uqar.ca/etudes/etudier-a-l-uqar/programmes-d-etudes/3292).
- GPA>3.2/4.3, 3.0/4.0 or 11/20.
- Hold a master's degree before the start date in Oceanography, Chemistry, Ecotoxicology, Biology or a related discipline.
- Excellent knowledge in analytical chemistry and environmental chemistry.
- Good communication skills in English and French.
- Travel for sampling and sample analysis will be required.
- Experience in microplastic and organic contaminants analyses is an asset.

Documents required

- CV
- Letter of motivation
- University academic transcripts (undergraduate and graduate)
- Names and contact information of three references

Selection

Equity, diversity, and inclusion are part of UQAR-ISMER's core values. We welcome all qualified candidates to apply for these positions. The selection of applicants will start on July 1, 2021 until the position is filled.

To apply or for more information, please contact Zhe Lu (zhe_lu@uqar.ca)