

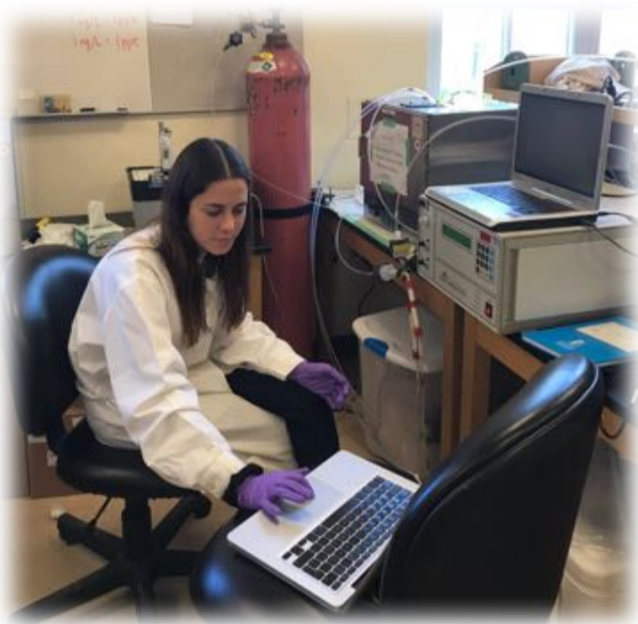
# Mercury stability on *Usnea* lichens

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Mercury is a globally distributed pollutant and one of the main pollutants of concern in aquatic ecotoxicology. Consequently, the mercury biogeochemical cycle and its transfer processes between environmental compartments has been a topic of research.

As a tool for mercury study, living organisms appear as an alternative to mainstream technical collectors. This dissertation examines the use of *Usnea* lichens collected in Nova Scotia, Canada, as passive air samplers and indicators of mercury dispersion.



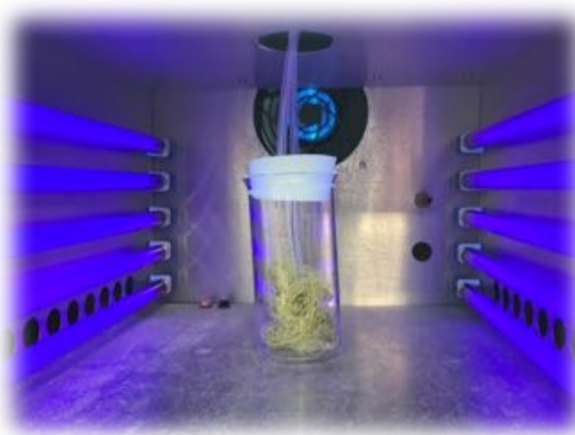
This study is specifically focused on how abiotic climatic factors, such as radiation, temperature and precipitation variations might affect the stability of mercury on the lichen.

Controlled experiments were performed on the collected lichens involving radiation, temperature, and moisture as variables, in order to test mercury stability on these organisms. Also, total mercury was analysed using a long term lichen collection with the objective to find possible correlations between those values and the abiotic climate factors measured through that same time.

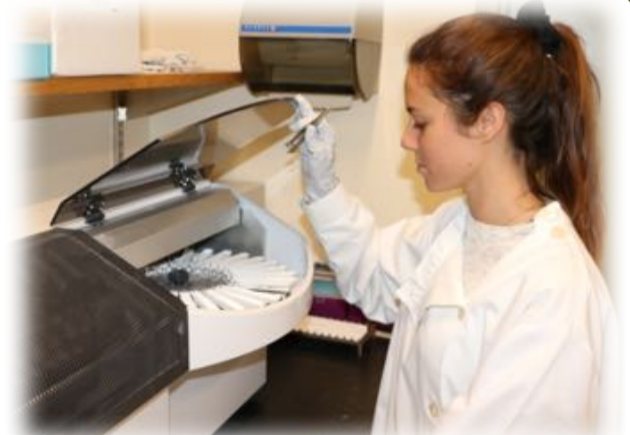
## Some method steps:



Cleaning the collected samples before analyses.



Controlled experiments: lichen irradiation (UV-A bulbs) in a photoreactor.



Total mercury analyses in the C.A.R.E. labs.

