ICTA Institut de Ciència i Tecnologia Ambientals - UAB

UAB Universitat Autònoma de Barcelona

The effect of different sampling methodologies to characterize microplastic pollution

Project description

Microplastic (MP) pollution is one of the main emergent environmental threats to our aquatic ecosystems. The rising scientific concern have promoted numerous research efforts to report the ubiquitous presence of these pollutants across different environmental matrices. However, the infant stage of this research field has prevented the standardization of methodologies for sampling, extracting and identifying, limiting the comparison of MP pollution levels between studies.

This master's thesis aims to investigate how different surface waters sampling methods (bulk vs. selective with different mesh sizes) affect the MP concentration in environmental samples, specifically how this variability affects to type and size distribution of the particles. Additionally, an interlaboratory comparison experiment will be perform to study the accuracy of different extraction and identification protocols. This thesis will integrate literature review and laboratory work (≈4 hours/day).

Requirements

It is highly recommended a Bachelor's Degree in Sciences (Environmental Sciences, Marine Sciences, Biology, Chemistry, Geology…).

Contact:

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