# Comparison between two methods for microplastic separation from sandy sediments

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**Abstract**

Micro plastics have already entered our food chain and become an inextricably part of it. Their size, mobility, and long-term accumulation and fragmentation processes impair survival of some marine species that mistake them for food or ingest them unintentionally. Once in our food web, negative effects on human health might be possible in the long term due to exposure, ingestion, inhalation, and bio accumulation. Several methods have been developed to isolate micro plastics from water, air, soils, and sand to study their distribution and chemical pathways. The most accepted methodology recommended by many authors is based on their physical and chemical properties, e.g., density and size. The present study compares two methods that are applicable to sandy sediments. Preliminar tests were performed on mangrove soil samples as well. Finally, we summarize advantages and disadvantages of both methods with the purpose of determining the best suitable method to perform their isolation on site, as part of a large-scale monitoring program.

**Keywords:** EFFICIENCY, RATE OF YIELD, DENSITY, ELUTRIATION, MONITORING

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