

MICROPLASTIC POLLUTION IN BEACHES AROUND ISKENDERUN BAY, LOCATED IN THE NORTHEASTERN LEVANTINE COAST OF TURKEY

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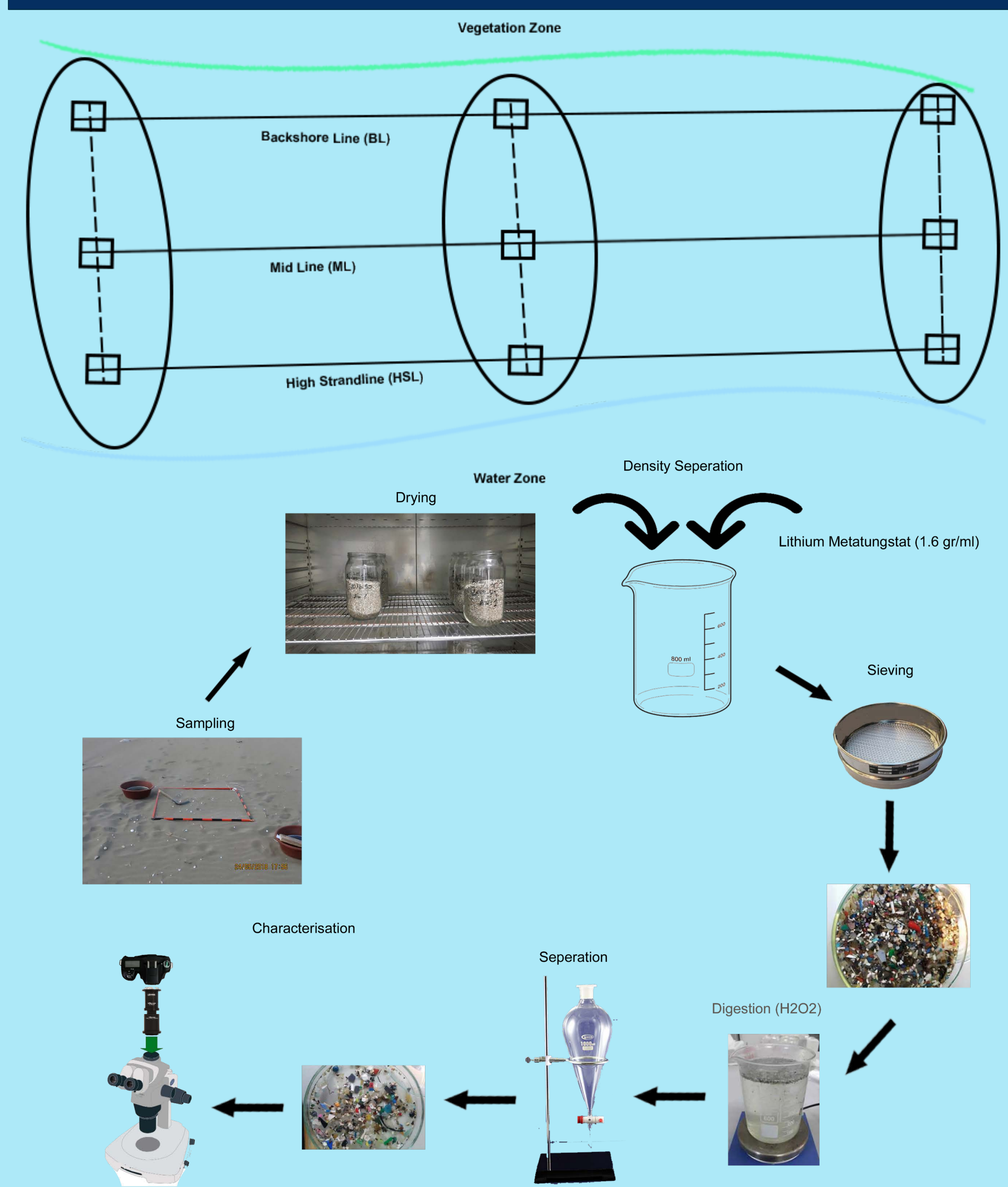
Abstract

The determination of the microplastic distribution is beneficial as a measure of the potential effects on the environment. Particularly in semi-closed ecosystems such as the Mediterranean Sea, this is getting more important. The Mediterranean Sea has a high risk of pollution as it was enclosed by highly populated and industrialized countries. The most important type of pollution that threatens the Mediterranean Sea is the pollution caused by plastics and microplastics. Here, for the first time, we determined the level of microplastic pollution in beaches around Iskenderun Bay, located in the Northeastern Levantine coast of Turkey. For this purpose, microplastic pollution was determined in May 2018 at 13 locations. Sampling was carried out during periods of minimum wave and wind conditions. Sampling was carried out at the points determined by random sampling method with the help of 1x1 m quadrates to obtain the first 5 cm depth of the sand.

Sampling Area



Material and methods



Results and Discussion

Microplastic concentration were found 100.7 ± 35.7 pcs/kg (1044 ± 219.2 pcs/m²). The highest microplastic concentration was observed in Dörtiyol location with 658.3 ± 42 pcs/kg. In all stations, 5 different types of microplastics (Fibre/Filament, Film, Fragment, Foam, Pellet/Granular) were found and the most frequent microplastics were found to be fragment type microplastics. Microplastics in the 1-5 mm length group were the most common size group. The results of this project show that the coasts of Iskenderun Bay are threatened by high levels of microplastic pollution.

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