

Comparison of the Frequency, Type and Shape of Microplastics in the Low and High Tidal of the Coastline of Bandar Abbas

Esmaili, Zinat¹; Naji, Abolfazl^{2*}

1- MSc. Department of Fisheries, Faculty of Marine Science and Technology, Hormozgan University, Bandar Abbas, Iran. Email: ze.esmaili@yahoo.com

2- Assistant Professor, Department of Fisheries, Faculty of Marine Science and Technology, Hormozgan University, Bandar Abbas, Iran. Email: abolfazlnaji@gmail.com

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*Corresponding Author

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Abstract

This study addressed the Micro Plastics (MPs < 5mm) quantification and morphology to assess the abundance, distribution, and polymer types in the low and high tidal areas of Bandar Abbas coastline. Sampling in March and April of 2017 from five stations in Bandar Abbas coast was performed using separation method based on two-stage density and flotation. At high tidal stations with an average of 1422 potential plastic particles, it was determined that the maximum number of MPs was at Bostanou Station, and the smallest of them belonged to Khore Azini Station. At low tidal stations, the average concentration of 306.62 potential plastic particles was the highest concentration of MPs in the surface sediments of the Gorsozan Station at the same time and the lowest concentration was related to the Soro Station. Overall, 83% and 17% of MPs were found in the high tidal and the tidal zone, respectively, which could be deduced that the accumulation of MPs near the high tidal line was higher.

Keywords: *Micro plastics, Marine environment, Surface sediments, Persian Gulf.*
