PHYSICAL AND CHEMICAL CHARACTERISTICS OF MICROPLASTIC PARTICLES IN LITHUANIAN RIVERS

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Plastic has become one of the most widespread materials since its beginnings as a phenol-formaldehyde resin. At its core, plastic was designed to improve human living conditions, but today it has become a real danger to the environment and the safety of the planet [1] In recent decades, the increase in usage of various synthetic polymers in various industries has led to a clim in microplastic presence in aquatic environments. These micro particles, often measuring less than 5 millimeters. Both primary microplastics (such as microbeads in various skincare products) and secondary microplastics (those arising from the degradation of large plastic particles find their way into the marine and terrestrial ecosystem where they unleash numerous detrimental ecological damages [2]. The numerous physical and chemical properties of microplastics further complicate their impact on aquatic organisms and ecosystems. Lithuania, with its rich tapestry of rivers, lakes, and wetlands, provides a unique context for studying the complexities of microplastic pollution. As plastic dumping activities continue to escalate, understanding the specific physical and chemical attributes of microplastics in Lithuanian freshwaters becomes imperative for devising targeted strategies. This research aims to contribute to the wider understanding of microplastic contamination by investigating the distinctive characteristics (such as size, color, form and chemical composition) of pollutants within Lithuanian river systems. Using integration of environmental science, chemistry, this study aims to provide more knowledge of microplastic contamination in Lithuanian freshwater environments.

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