

## ABSTRACT

Plastic pollution has amassed global concern over the years as the consequences of mismanagement of plastic wastes soon became obvious. Although much of the initial attention was directed at larger, visible plastic items as agents of pollution, evidences regarding plastic pollution in the micro-scale have started to accumulate.

Plastics come in all sizes; with macroplastics (>2.5 cm) being the most conspicuous. Microplastics on the other hand are smaller pieces of plastics (< 5 mm) which can either originate from primary (commercial manufacturing) or secondary sources (breakdown of larger plastic items). Because of their ubiquity and small size, the incorporation of microplastics into living systems as well as in environmental processes has become a subject of concern.

In the Philippines, which simultaneously ranks among the top plastic polluters in the world and among the richest in terms of marine biodiversity, research on plastic pollution is starting to flourish. Given the archipelagic setting of the country, there are numerous opportunities to evaluate the distribution and extent of plastic pollution, and how it affects the concomitant biodiversity. This study aims to evaluate the extent of plastic pollution in Manila Bay, which is witness to the uncoordinated, rapid urbanization in the National Capital Region (NCR) throughout the years. Specifically, this research will focus on the abundance, distribution, and polymer profiles of surface water plastics in the section of Manila Bay adjacent to the NCR. Results of this study can help us further visualize the actual extent of the plastic pollution problem in the Philippines, and are expected to establish baseline field-derived metrics that can aid formulation of effective management strategies in mitigating plastic pollution in the area.

**Keywords:** Manila Bay, macroplastics, surface water, microplastics