

## ABSTRACT

Plastic pollution has been one of the most pervasive environmental issues in the world in the recent decades. The widespread production and use of plastic materials, driven by their extreme versatility and utility, contributed to the accumulation of plastic wastes in different environments. While the inherent desirable properties of plastics are nothing short of revolutionary, mismanagement of plastics resulted in their undesirable persistence in the natural environment. Studies have documented the presence of plastics in almost everywhere: from the mountains to the oceans, in the remotest places on Earth such as the Arctic and Antarctic regions, inside living organisms, and even in the air. Over time, plastics from all over these places, through the action of natural and anthropogenic influences, end up in the Earth's ultimate sink: the oceans.

The Philippines has consistently ranked among the top ocean plastic polluters in the world, in reference to the outcomes of widely cited modeling studies. Implicit to the bases of these claims is the archipelagic setting of the Philippines, its high coastal population, and the regional climate contributing to the increased likelihood of plastics entering the marine environment. By the same token, these demographic, climatological, and geographical features also highlight the vulnerability of the country's coastal ecosystems. As these ecosystems lie at the interface between terrestrial and marine environments, they are prone to plastics pollution coming in from both sides. The goal of this study is to investigate the occurrence and abundance of microplastics in beach sediments in several coastal environments in Western Philippines. Through this, our study aims to provide a better understanding on the fluxes of plastics and the potential drivers of microplastics accumulation in beach environments in the Philippines.

**Keywords:** beach sediments, microplastics, coastal environment, Philippines