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# Microplastic in *Lithognathus mormyrus* of Tunisian Ports: Central Mediterranean Sea.

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## Abstract

The Mediterranean Sea (MS) is defined as the largest and deepest semi-confined basin, and it's recognized as among the most plastic-polluted marine areas in the world. Its coasts are characterized by more than 450 ports and terminals that represent about 30% of the world's maritime trade (by volume). Due to the specificity of ports, which are characterized by poor water exchange with the open sea, they have been classified as a major sink for plastic pollution. The study aims to assess the presence, composition and characterization of Mps in commercial fish. This work was carried out in six fishing ports along the Tunisian coasts to monitor the presence of microplastic by analyzing the gastro intestinal tract of *Lithognathus mormyrus* which has an economic value in Tunisia.

Microplastics were found to be present in the 90% of samples. A total of 35 items identified in the fish were fibers with different colors, red, blue and white and fragments. The polymers found in the microplastics selected for investigation using Micro Fourier Transformed Infrared spectroscopy ( $\mu$ FTIR), were Polyethylene, Polypropylene, Polyacrylamide and Acrylamide. These results provide an important baseline on microplastic pollution along the Tunisian coasts as it is the first time to assess possible use *L. mormyrus* as a "bioindicator" species of microplastic pollution in port areas in Tunisia.

**Keywords:** Microplastics, Fishing ports, *Lithognathus mormyrus*,  $\mu$ FTIR, Polymers

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