

{rokbox title=|Floating plastic concentration from net trawl measurements, corrected for wind mixing effect :: Image: Authors|
thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-marine-litter-sampling-jorda-2025-thumb-et-al.jpg|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-marine-litter-sampling-jorda-2025-et-al.jpg{/rokbox}

Jorge Ramos-Alcántara, Javier Soto-Navarro, **Gabriel Jordà**, 2025. [Marine litter sampling across the Western Mediterranean: Critical bibliographic review and dataset compilation](#). Marine Pollution Bulletin. March 2026. 119123. Volume 224. 10.1016/j.marpolbul.2025.119123

Abstract: Marine litter (ML) is a widespread pollutant, even reaching remote oceanic regions; however, research in this field began only recently and did not gain momentum in the Mediterranean until the 2010s. Information on the presence of ML in the basin is mainly based on observations campaigns, which are dispersed in space and time, and rarely use the same measurement protocols. This inconsistency hinders comparison and the attainment of a synoptic picture of the actual debris distribution in a basin with such complex hydrodynamics. This work has two distinct parts. Firstly, an exhaustive bibliographic review of ML sampling in the Western Mediterranean is presented, covering all marine compartments (surface, water column, seafloor, beaches, rivers and coastal lagoons), all sampling methods, and all ML size classes. The aim is to critically assess the scope and limitations of available data. Second, FAIR-compliant data on floating plastic concentrations from surface net trawls was compiled and harmonised, sourced from scientific publications and the EMODnet database. Data from 863 trawl samples are collected, offering an observational overview of plastic distribution at the sea surface in the Western Mediterranean. We conclude that the shortcomings detected in ML sampling protocols are a major limiting factor for the study of the physical behaviour of these pollutants. Nevertheless, through a detailed analysis and an appropriate homogenisation of the available observations, we present a first picture of the ubiquitous but heterogeneous presence of floating plastics in a semi-enclosed basin such as the Mediterranean Sea.

Keywords: Mediterranean, Marine litter sampling, Literature review, Marine compartments, Floating plastic, Observational dataset