{rokbox title=|Graphical abstract :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-risk-assessment-plastic-pollution-marine-diversity-mediterranean-sea-compa-et-al-2019-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-risk-assessment-plastic-pollution-marine-diversity-mediterranean-sea-compa-et-al-2019.jpg{/rokbox}

Montserrat Compa, **Carme Alomar**, Chris Wilcox, Erik van Sebille, Laurent Lebreton, Britta Denise Hardesty, **Salud Deudero**, 2019. **Risk assessment of plastic pollution on marine diversity in the Mediterranean Sea.** Science of the Total Environment 678 (2019). 188–196.

Abstract: Plastic marine pollution is an increasing threat to global marine diversity. Quantifying this threat is particularly difficult and complex, especially when evaluating multiple species with different ecological requirements. Here, we examine the semi-enclosed basin of the Mediterranean Sea where the inputs of plastic pollution and its impact on marine diversity are still widely unknown. Eighty-four species from six taxonomic classes were evaluated to assess the risk of ingesting plastic marine debris, integrating inter-specific factors such as plastic exposure rates and life history traits (e.g., motility, habitat, and body size). Species were modelled within a spatial context to identify and estimate their exposure to plastic ingestion across theMediterranean Sea using literature data, species distribution maps and plastic dispersion models. Our approach identified hotspots for the risk of plastic ingestion across multiple taxa in the Mediterranean Sea, highlighting that coastal species are at higher risk of ingesting plastic in themarine environment than open-sea species. The plastic exposure analysis indicated that species with larger home ranges were more at risk of exposure with increased distances while local species were more likely to be exposed to plastic closer to the centre of their home range location. The approach used in this study can be applied to support management and mitigation efforts throughout the Mediterranean Sea and in other geographic regions to minimize the impact of plastic pollution on marine diversity.

Keywords: Risk framework, Plastic ingestion, Marine debris, Ecological assessment, Marine species, Biodiversity