

{rokbox title=|Study area of the Balearic Islands (A) and conceptual framework of the risk assessment analytical strategy (B) :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-quantifying-plastic-ingestion-ichthyofauna-balearic-islands-compa-et-al-2022-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-quantifying-plastic-ingestion-ichthyofauna-balearic-islands-compa-et-al-2022.jpg{/rokbox}

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[Quantifying the risk of plastic ingestion by ichthyofauna in the Balearic Islands \(western Mediterranean Sea\)](#)

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Abstract: This study investigates the risk plastic debris ingestion poses to coastal marine taxa in the Balearic Islands in the western Mediterranean Sea. Here, we use species observations and environmental data to model habitat maps for 42 species of fish. For each species, we then match estimates of habitat suitability against the spatial distribution of plastic debris to quantify plastic exposure, which we further combine with species-wise ingestion rates to map the risk of plastic ingestion. The results indicate that the risk of plastic ingestion is particularly high in the north-west and south-east regions and the risks varied strongly between species, with those at higher trophic levels being the most vulnerable overall. Extending this work to other coastal regions within the Mediterranean Sea and beyond will allow managers and policymakers to target the most appropriate areas and types of interventions for mitigating plastic pollution on coastal diversity in the marine environment.

Keywords: Marine coastal fauna, Risk assessments, Plastic ingestion, Habitat mapping, Balearic Islands, Western Mediterranean Sea