{rokbox title=|Location of beaches :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-a-global-assessment-microplastic-marine-turtle-nesting-beaches-boterell-et-al-2025-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-a-global-assessment-microplastic-marine-turtle-nesting-beaches-boterell-et-al-2025.jpg{/rokbox}

Zara L.R. Botterell,..., **Pilar Santidrián Tomillo**,..., Brendan J. Godley, 2025. **A global assessment of microplastic abundance and characteristics on marine turtle nesting beaches.** Marine Pollution Bulletin. Volume 215, June 2025, 117768.
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Abstract: Sandy coastal beaches are an important nesting habitat for marine turtles and a known sink for plastic pollution. Existing methodologies for monitoring the spatiotemporal patterns of abundance and composition of plastic are, however, disparate. We engaged a global network of marine turtle scientists to implement a large-scale sampling effort to assess microplastic abundance in beach sediments on marine turtle nesting beaches. Sand samples were collected from 209 sites spanning six oceans, microplastics (1-5 mm) were extracted through stacked sieves, visually identified, and a sub-sample verified via Fourier-transform infrared spectroscopy. Microplastics were detected in 45 % (n = 94) of beaches and within five ocean basins. Microplastic presence and abundance was found to vary markedly within and among ocean basins, with the highest proportion of contaminated beaches found in the Mediterranean (80 %). We present all data in an accessible, open access format to facilitate the extension of monitoring efforts and empower novel analytical approaches.

Keywords: Plastic pollution, Microplastics, Marine litter, Beach sediment, Spatial distribution, Sea turtle