{rokbox title=|Study area of the two sampling sites :: Image: Authors| thumb=|images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-posidonia-oceanica-egagropiles-indicators-plastic-pollution-alomar-et-al-2024-thumb.jpg|}images/stories/ieo/imagenespublicaciones/centro-oceanografico-baleares-ieo-csic-posidonia-oceanica-egagropiles-indicators-plastic-pollution-alomar-et-al-2024.jpg{/rokbox}

**Carme Alomar**, **Montserrat Compa**, **Valentina Fagiano**, Margherita Concato, **Salud Deudero**
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***Posidonia oceanica***
**egagropiles: Good indicators for plastic pollution in coastal areas?**
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Abstract: Plastic is ubiquitous within the global marine environment, essentially becoming part of the environment and the ecology of these ecosystems. In Mediterranean ecosystems seagrass meadows of *Posidonia oceanica* provide key ecosystem services like preventing coastal erosion slowing down the water flow velocity and acting as sediment traps. Recent studies have reported how as for sediments particles, seagrass meadows could be also retaining plastic items in their internal structures. In this study, a total of 93 *Posidonia oceanica* egagropiles were collected floating at sea in two coastal areas of the Balearic Islands during the summer season of 2017. Once at laboratory the perimeter of each egagropiles was measured and plastics inside them were visually sorted under the stereomicroscope to identify whether marine plastic was becoming part of their internal structure. Results indicate that 30 % of the egagropiles from the eastern coast of Mallorca (Cala Ratjada) contained plastics, while only 13 % of the egagropiles from the northern coast (Can Picafort) had plastics inside them. In addition, identified plastics have been validated with ATR-FTIR spectroscopy indicating that marine plastics with different polymeric composition, mainly polyethylene terephthalate, polyethylene and polypropylene are becoming part of these organic structures. Results from this study are important since it could be indicating transference of plastics along different marine coastal habitats.

Keywords: Microplastics, Plastic pollution, *Posidonia oceanica*, Mediterranean Basin, Indicators