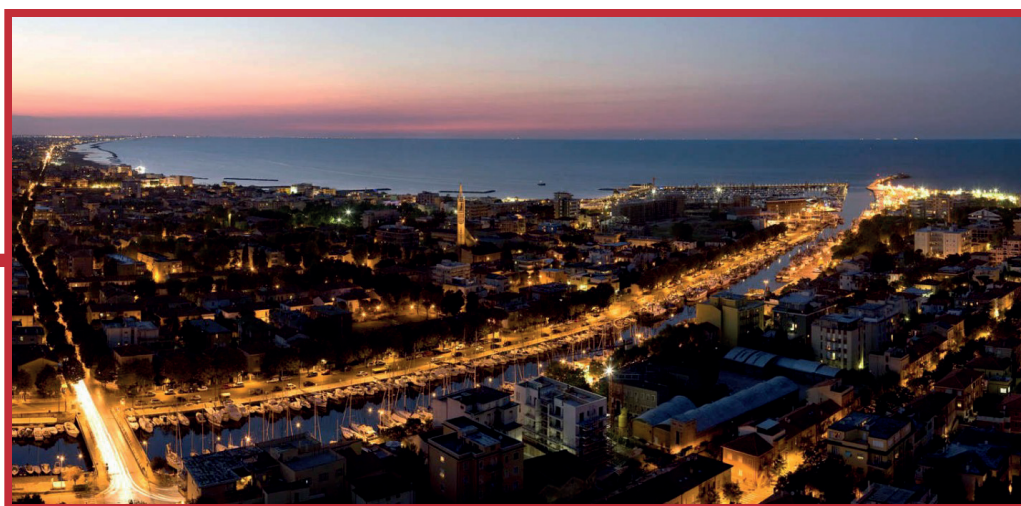


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Plastic ingestion by the mediterranean *scyliorhinus canicula*

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The presence of plastic debris in the environment, especially in water bodies, is nowadays a problem of major concern. Plastics are widely diffused in the oceans and their possible ingestion by marine organisms can potentially cause adverse effects [1]. In this work we assessed the occurrence of plastic ingestion by the small-spotted catshark (*Scyliorhinus canicula*), one of the most abundant elasmobranchs in the Mediterranean Sea.

One hundred catsharks were collected during the Spring 2018 in the southern region of the central Mediterranean Sea: near Mazara del Vallo and Lampedusa island. Standard measurements were recorded for each specimen and its organs and sex was determined. The gastrointestinal tract (GIT) was used for plastic detection and identification. The procedure adopted consists in the digestion of the GIT in KOH (aq 10%) for 24 hours at 60°C followed by a density separation and vacuum filtration on cellulose nitrate filters with 8 µm pore size [2]. Where present, plastics (macro- and micro-) were characterized in terms of size, shape and polymer typology through microscopy and µ-Raman spectroscopy. The results obtained indicate that ingestion of plastics is a widespread phenomenon, with microplastics (MP<5mm) abundantly present in all samples and macroplastics (MaP>25mm) in approximately 30% of the specimens collected.

The results of this study represent a first evidence that plastic pollution is an emerging threat to *S. canicula*, the Mediterranean food web and, eventually, human consumers.

[1] M. Smith, D.C. Love, C.M. Rochman, and A. Roni, *Curr. Environ. Health Rep.* **5** (2018) 375–386.

[2] A. Dehaut, A.L. Cassone, L. Frère, L. Hermabessiere, C. Himber, E. Rinnert, G. Rivière, C. Lambert, P. Soudant, A. Huvet, G. Duflos, and I. Paul-Pont, *Environ Pollut.* **215** (2016) 223-233.