

THEME SESSION H

*Impacts of human activities
and pressures on seafloor
ecosystems: past, present
and future*

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CM 462: First records of fishing gear incrustated in corals and gorgonians from the Atlantic coast of Portugal

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Plastic pollution is now in the public and scientific domain as an emerging issue of global concern due to their potential effects to nature and the society. There is high evidence that plastics are now present in virtually all aquatic ecosystems and are ingested by several organisms, however, little is known about their impact on deep marine ecosystems and especially on the deep-sea reefs built by emblematic cold-water corals species. The occurrence and abundance of these organisms in the Portuguese Atlantic coast is still largely unknown. During recent sampling campaigns aiming at mapping these ecosystems in the Portuguese coast, preliminary analyses showed the presence of nylon plastic lines in the stony cup corals of Dendrophylliidae, in *Dendrophilia ramea*, and a hook-and-line fishing gear incrustated in Gorgonian organisms, in *Leptogorgia sarmentosa*, collected in two different areas (north and central coastal area of Portugal, 30-50m depth). The derelict gear is mainly composed of nets, ropes and lines made of non-biodegradable plastics and have been also reported as causing tissue loss and fragmentation in corals and gorgonian habitat.

This preliminary assessment reveals that the occurrence of the species in sedimentary grounds makes it especially vulnerable to bottom contact with fishing gear as bottom trawling and should be better investigated and communicated to local stakeholders. The spatial distribution of these populations, as well as a first attempt to characterize its habitat and the levels of plastics will be explored in the next months as an approach to describe the habitat's suitability and the vulnerability for the species in the area. This is a first assessment but further studies are foreseen which include monitoring these habitats and see how they interact with fishing gears over time in these areas, which will be also presented and discussed.

Keywords: Plastic pollution, corals, gorgonian, fishing gears, Atlantic coast

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