Corso di Dottorato di Ricerca in Scienze della Vita e dell'Ambiente - Ciclo XXXVI



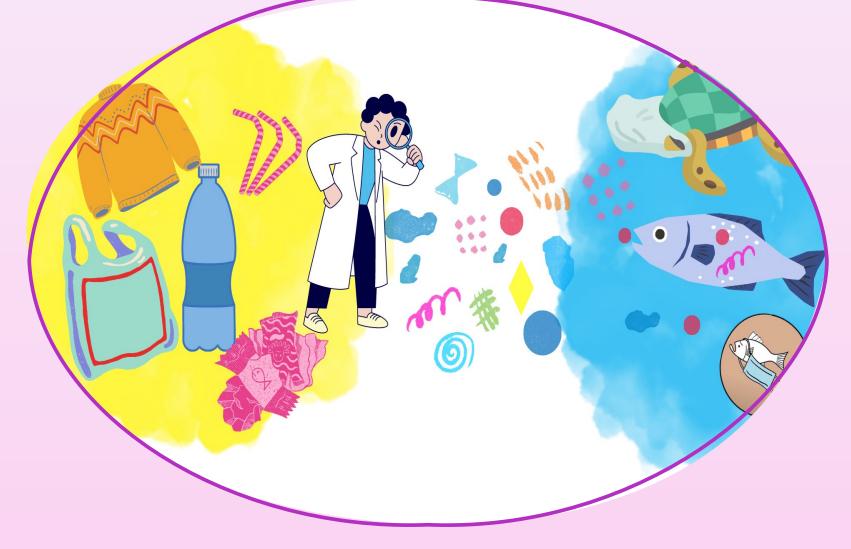
Plastic pollution in rocky coastal areas of high ecological value: development of innovative technologies to assess the impact, removal and recycling of materials

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OCCURRENCE OF MARINE PLASTIC DEBRIS IS A WELL-KNOWN ISSUE..

...which worsens in basins with limited water exchanges and densely populated coasts as the Adriatic Sea.

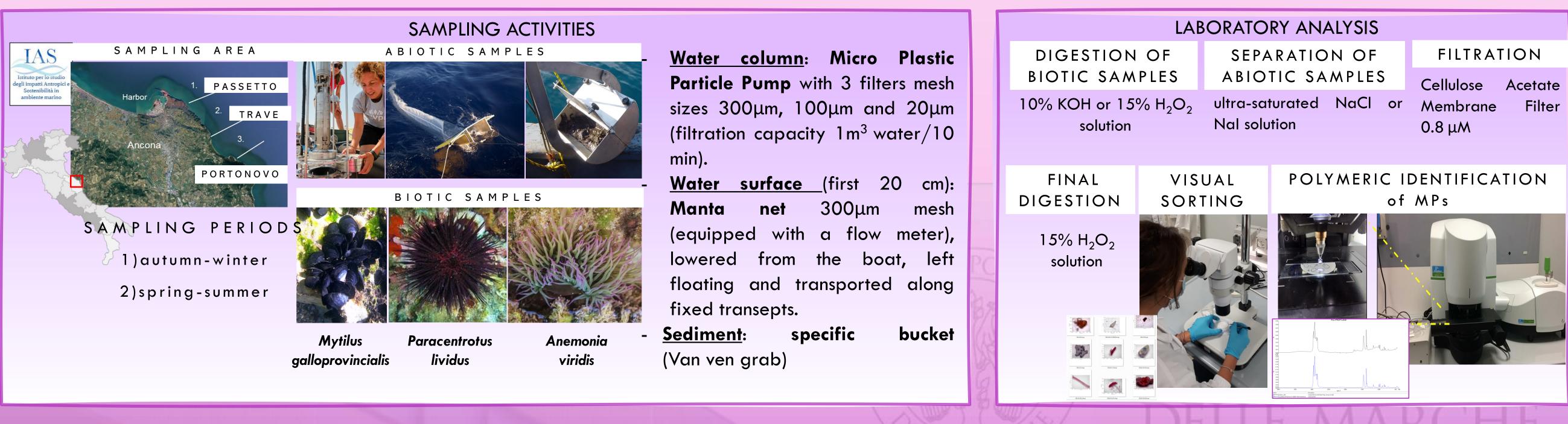
Remaining in the sea for hundreds years, plastic can transport inner additives [1] and adsorbs chemicals on its surface, which can be released again in the environment [2,3,4], posing potential risk to marine biodiversity.



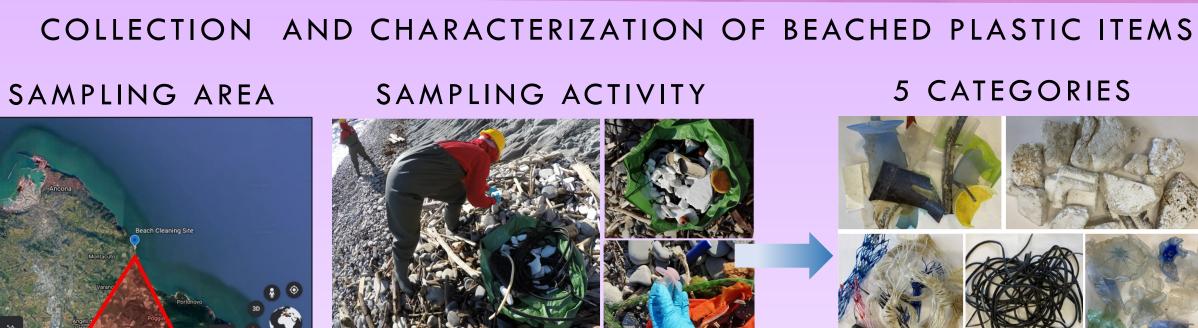
AIM

This PhD project aims to investigate the presence and the effects of plastic litter (both macro- and microplastics) in the marine environment with a special focus on the Conero Riviera, including both field sampling activities and laboratory experiments. Specific objectives are to study: (i) plastic-biota interaction and possible consequent adverse effects and (ii) role of plastics as carriers of contaminants

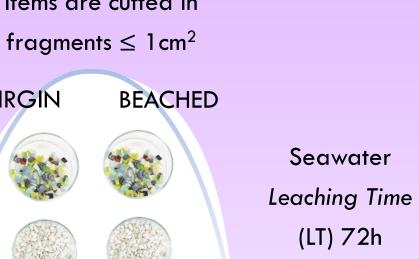
OCCURRENCE OF MICROPLASTICS IN MARINE ENVIRONMENTAL AND BIOLOGICAL SAMPLES COLLECTED ALONG THE CONERO RIVIERA (Ancona, Italy) AND ASSESSMENT OF POLYMERIC NATURE THROUGH MICRO-FOURIER TRANSFORM INFRARED SPECTROSCOPY (µFTIR)



LEACHATES FROM BEACHED AND NEW PLASTIC ITEMS: ASSESSMENT OF CHEMICAL COMPOSITION AND ECOTOXICITY TO MARINE ORGANISMS

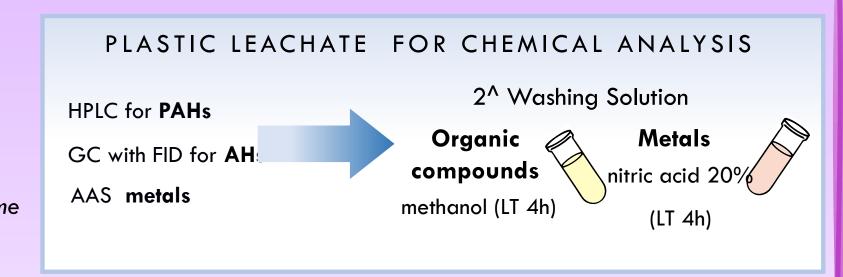


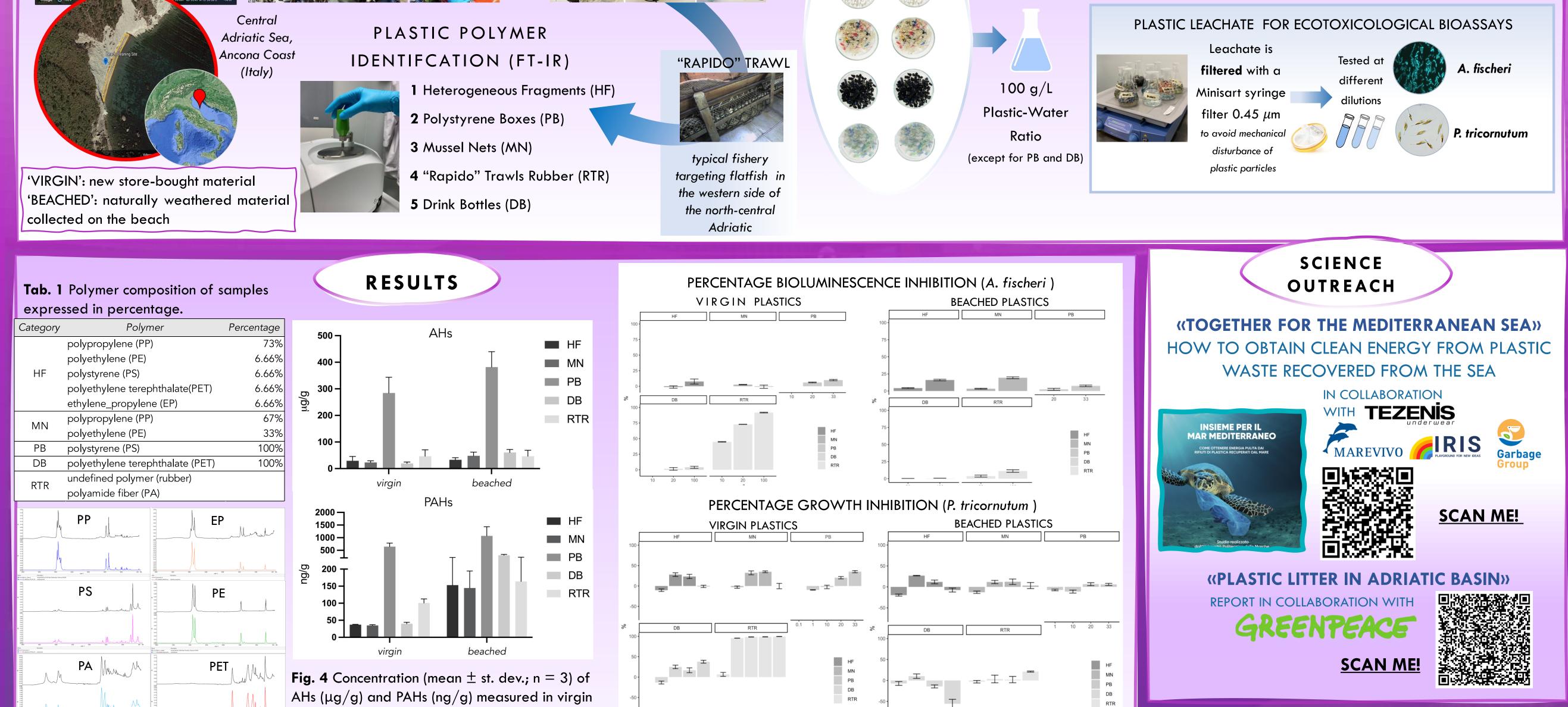
Items are cutted in VIRGIN



1 10 20 100 1 10 20

LEACHATES PREPARATION AND ANALYSES





Gallo, et. al. (2018).Environmental Sciences Europe, 30(1), 1-14. [2] Teuten, et a., (2009).Philosophical Transactions

g/L Oscolption m.J. Sample 001 BJ, USCBI Date Thumley, May 52 2832 PA-54 - INICIDESE (2001) SamPTILON ADDIVIDED The results will be presented at The 21th International Symposium on Pollutant Responses In Marine Organisms (PRIMO21) Gothenburg Sweden, May 22-25

and beached plastic leachates.

2022 during the session «Plastic Pollution, Microplastics & Responses in Marine Organisms» with a Poster: «Leachates from beached and new plastic items:

assessment of chemical composition and ecotoxicity to marine organisms».

the Royal Society B: Biological Sciences, 364(1526), 2027-2045. [3] Endo, et al., (2005). Marine pollution bulletin, 50(10), 1103-1114. [4] Engler, et al. (2012). Environmental science & technology, 46(22), 12302-12315.

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