

i-plastic

From the land to the sea, the fate of micro and nanoplastics



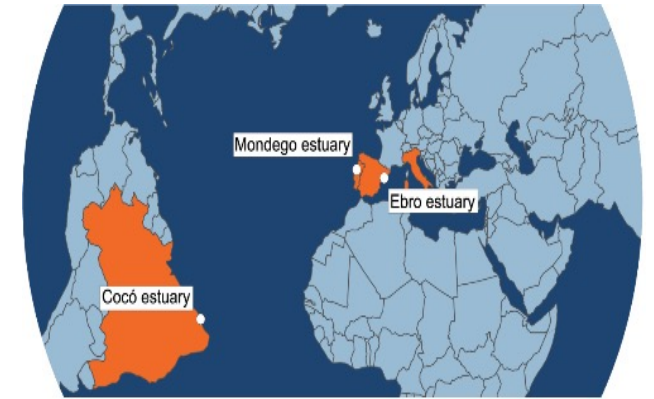
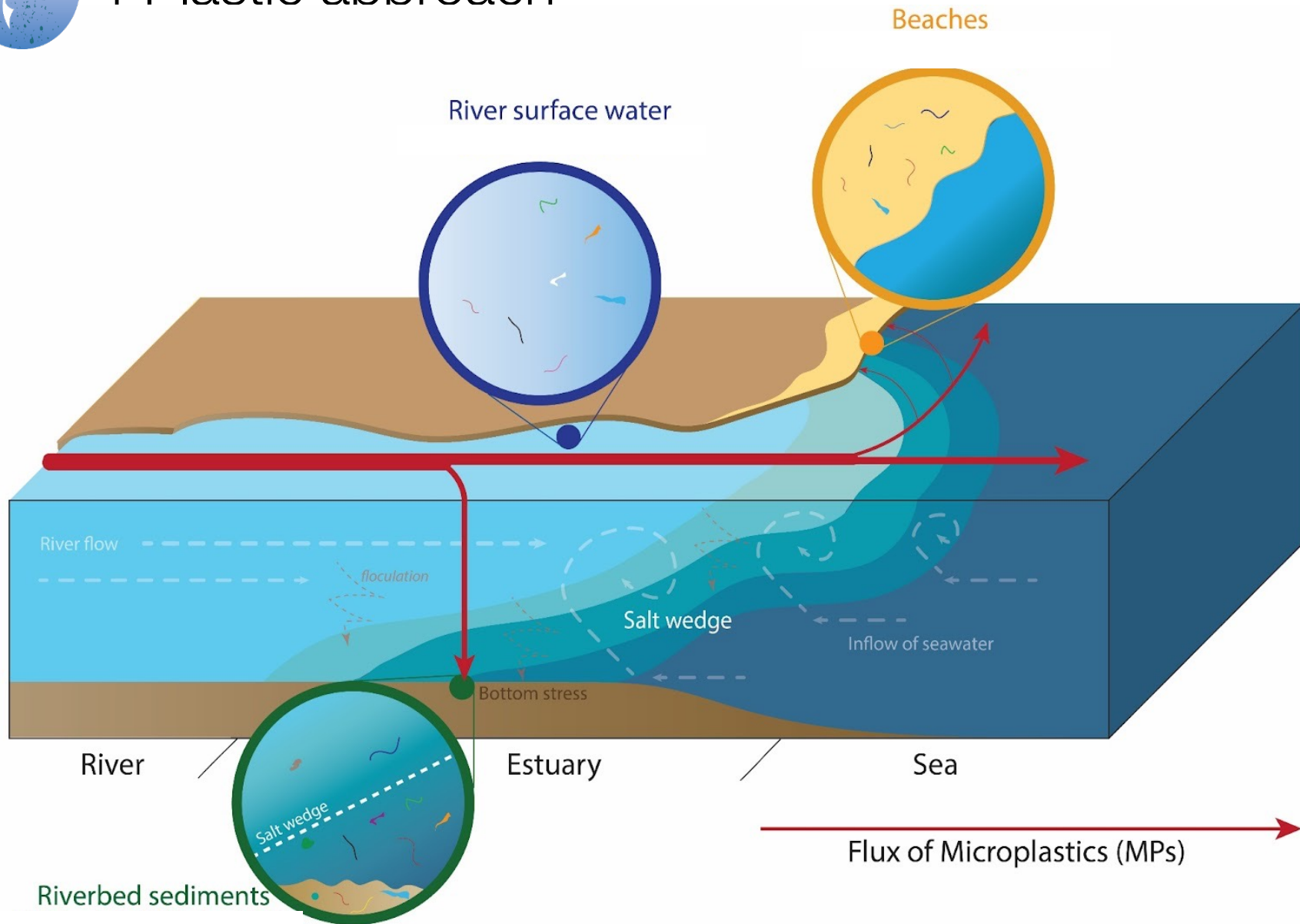
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FILIPA BESSA

¹Universidade de Coimbra
MARE – Centro de Ciências do Mar e do Ambiente



i-Plastic approach



MONITORING AND MAPPING
EFFECTS BIOTA
FRAGMENTATION PROCESSES
NANOPLASTICS
REGIONAL MODELS

**GENERAL MODEL OF
DISPERSION OF MICRO AND
NANOPLASTICS AT THE
ATLANTIC SCALE**

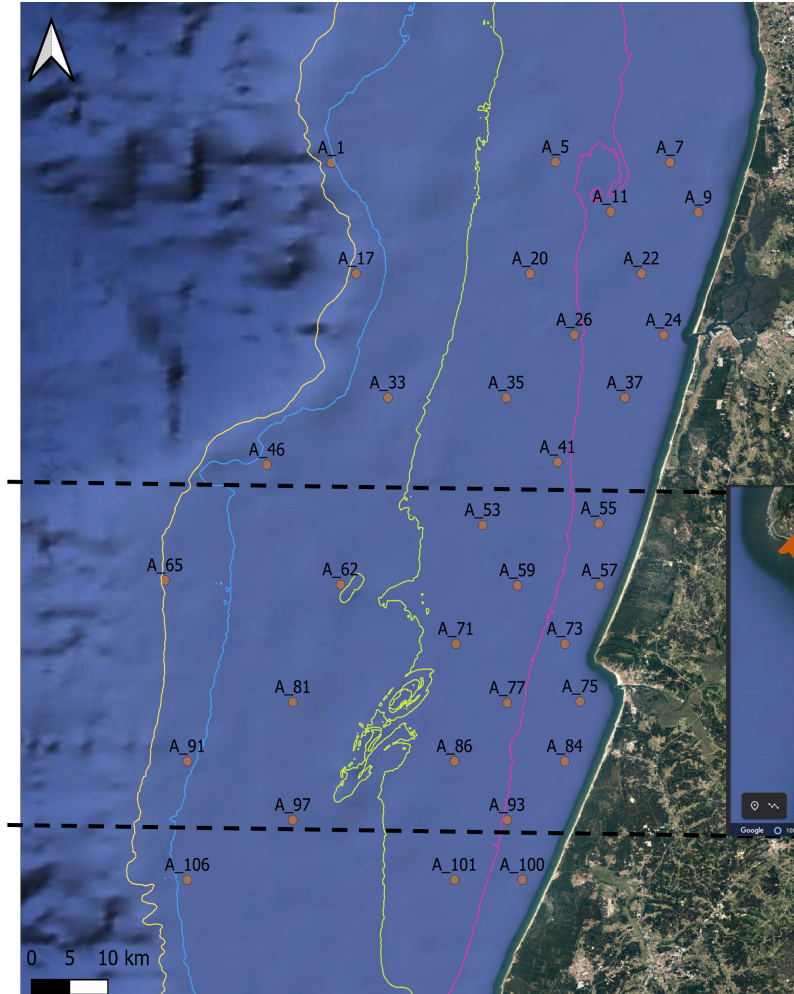


i-Plastic Sampling Overview

Mondego estuary (Portugal) and adjacent coastal areas (2020-2023)

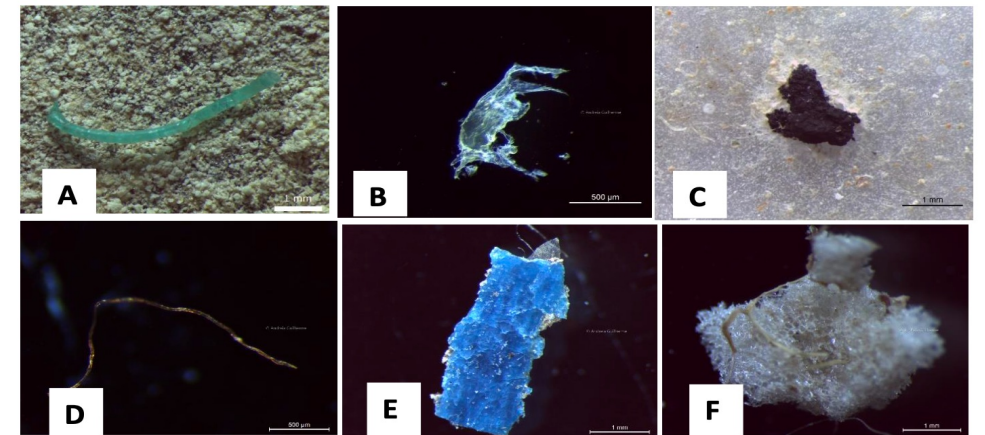
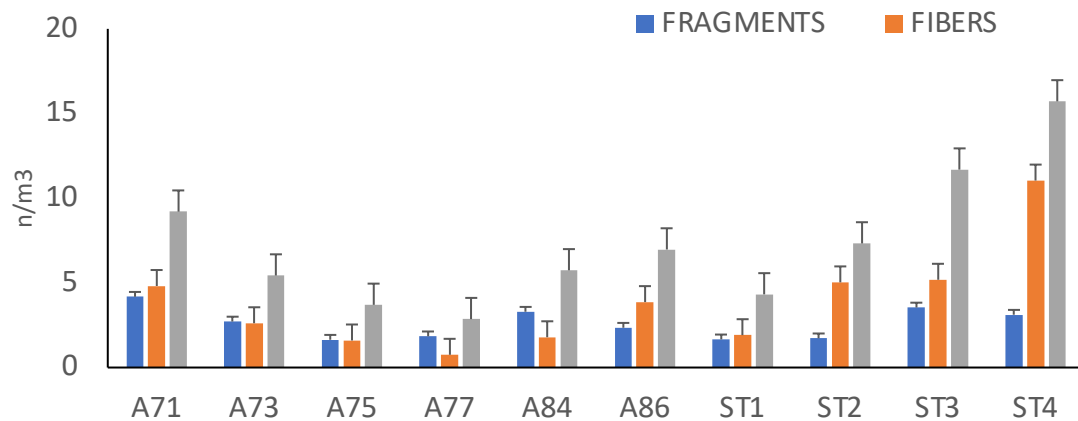
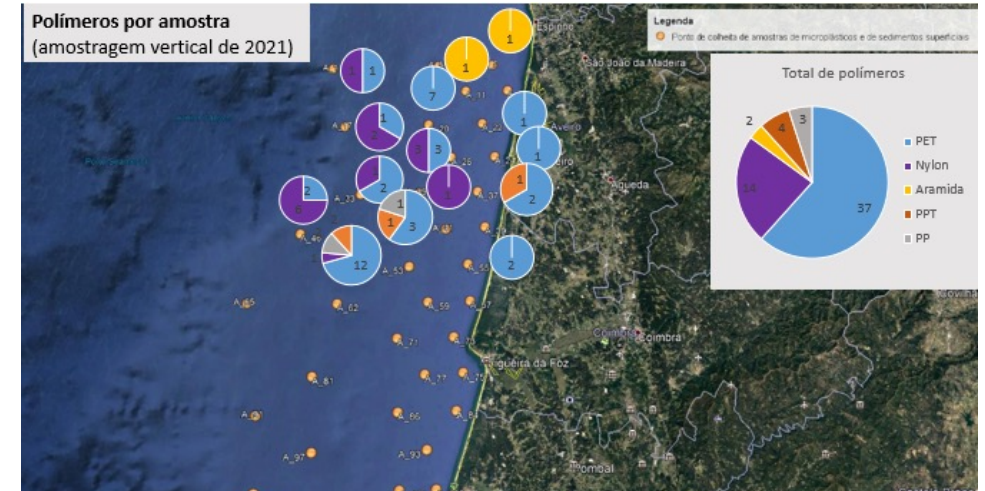
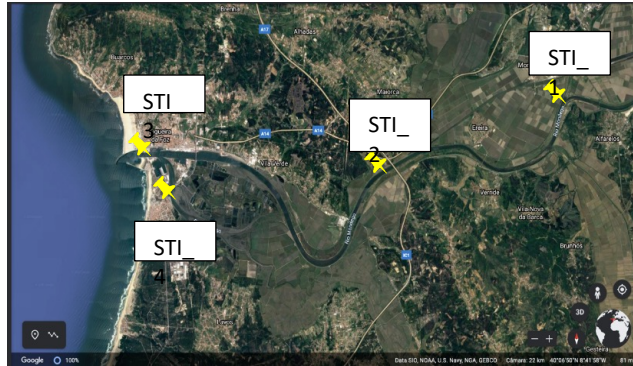
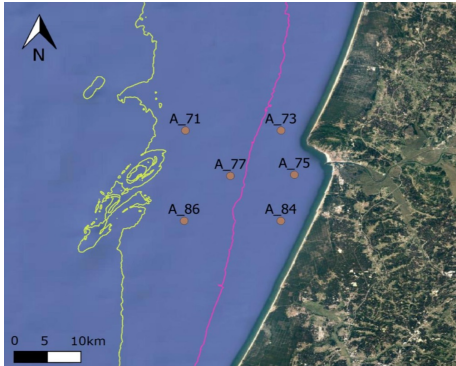


- ✓ Water Surface Sampling (manta net 150 μm)
- ✓ Water Surface Sampling (manta net 330 μm)
- ✓ Water Column Sampling (plankton net 150 μm)
- ✓ Dredge *Petit Ponar* of Riverbed Sediment
- ✓ Beach Sampling
- ✓ BIOTA – mussels as indicators





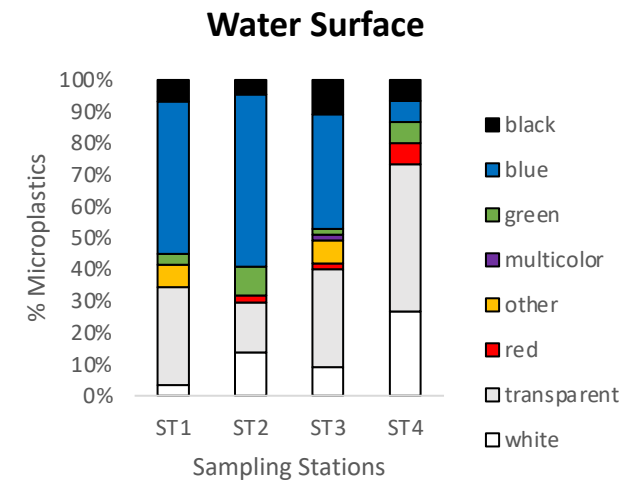
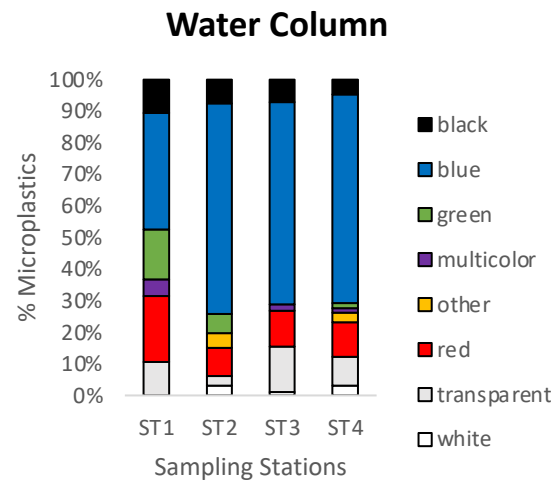
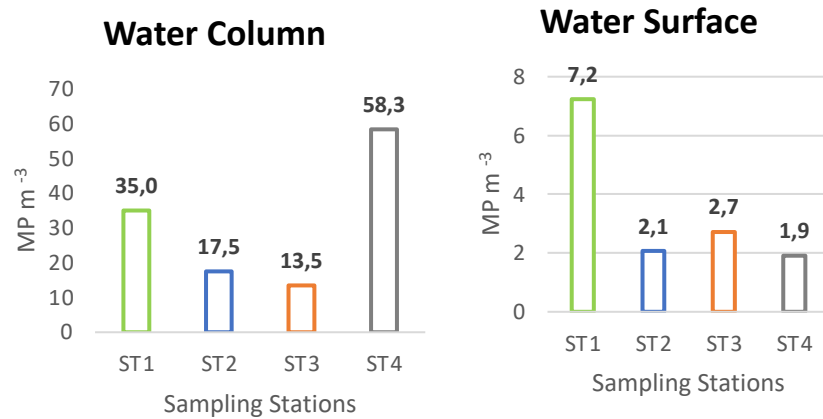
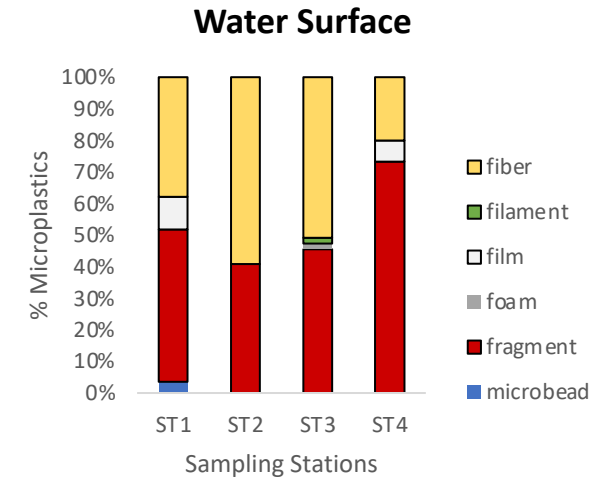
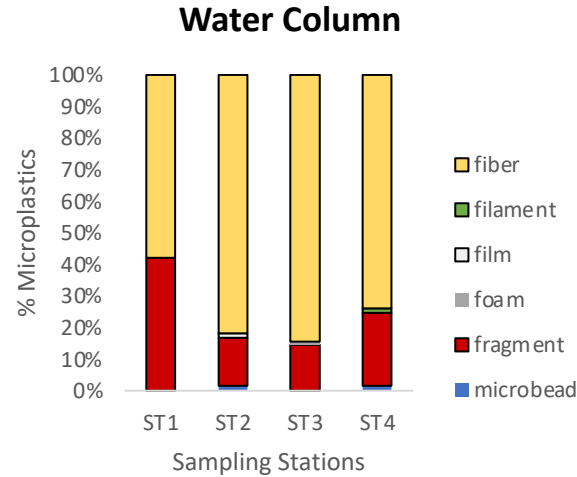
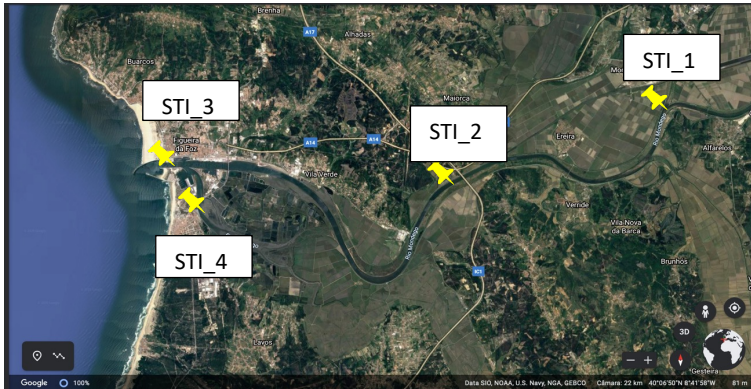
MICROPLASTICS - PRELIMINARY DATA



- Higher concentrations of MPs in estuarine waters than the open sea
- Higher concentrations detected near wastewater treatment plant outlets



MICROPLASTICS WITHIN THE MONDEGO ESTUARY



- HIGHER CONCENTRATIONS OF MPS IN WATER COLUMN
- FIBERS AS THE MAIN TYPE AND BLUE THE DOMINANT COLOR



NEXT STEPS

PYROWIND Campaign (Apr-May 2022)

- ✓ SAMPLING CAMPAIGNS ONGOING
- ✓ INTEGRATION DATA
- ✓ REPORTING AND OUTREACH



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TEAM MEMBERS



Paula Sobral
Professor and
Researcher



Filipa Bessa
Researcher
Assistant



Carla Palma
Researcher



Elisabete Valente
Researcher



Andreia Guilherme
Researcher