The Plastic Busters MPAs marine litter monitoring results and achievements at Capo Milazzo (Italy)

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Capo Milazzo MPA

Established in 2018 to protect 274 hectares of sea
Monitoring micro and macro litter

**Beach litter**

- **Macrolitter** → *Visual Census*
  
  6 beach (4 inside MPA and 2 outside MPA)

- **Microlitter** → *sediment sampling*
  
  9 samplers (30x30 cm; first 5 cm) for each beach

**Seafloor**

- **Macrolitter** → *Visual Census*
  
  2 transects (50 m x 4 m) at 5 and 10 m for each site

**Floating**

- **Microlitter** → *Manta trawl*
  
  (Mouth opening: 60 x 15 cm; Mesh size: 330 µm; Time: 30 min at 1.5 - 2 knots)

- **Macrolitter** → *Visual observation*
  
  (Strip width: 6 m; Time: 30 min)
Beach macro-litter

3 sampling seasons (summer-spring- autumn)

Source of litter

- ARTIFICIAL POLYMER MATERIALS
- RUBBER
- CLOTH/TEXTILE
- PAPER/CARDBOARD
- PROCESSED/WORKED WOOD
- METAL
- GLASS/CERAMICS
- UNIDENTIFIED AND/OR CHEMICALS

MSFD threshold
20 items 100 m⁻¹
# Beach macro-litter - Top Ten

<table>
<thead>
<tr>
<th>Rank</th>
<th>G-code</th>
<th>Beach macro-litter category</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G21</td>
<td>Plastic caps/lids from drinks</td>
<td>28.1</td>
</tr>
<tr>
<td>2</td>
<td>G79</td>
<td>Plastic pieces 2.5 cm &gt; &lt; 50cm</td>
<td>26.2</td>
</tr>
<tr>
<td>3</td>
<td>G22</td>
<td>Plastic caps/lids from chemicals, detergents (non-food)</td>
<td>9.1</td>
</tr>
<tr>
<td>4</td>
<td>G8</td>
<td>Drink bottles &gt;0.5l</td>
<td>6.6</td>
</tr>
<tr>
<td>5</td>
<td>G82</td>
<td>Polystyrene pieces 2.5 cm &gt; &lt; 50cm</td>
<td>6.1</td>
</tr>
<tr>
<td>6</td>
<td>G27</td>
<td>Cigarette butts and filters</td>
<td>4.0</td>
</tr>
<tr>
<td>7</td>
<td>G7</td>
<td>Drink bottles &lt;=0.5l</td>
<td>2.8</td>
</tr>
<tr>
<td>8</td>
<td>G26</td>
<td>Cigarette lighters</td>
<td>2.8</td>
</tr>
<tr>
<td>9</td>
<td>G10</td>
<td>Food containers incl. fast food containers</td>
<td>2.3</td>
</tr>
<tr>
<td>10</td>
<td>G70</td>
<td>Shotgun cartridges</td>
<td>2.1</td>
</tr>
</tbody>
</table>

![Bar chart showing percentages of non-plastics and SUPs in different beach areas.](Plastic_Busters_MPAs_Final_Conference_Athens_12-13_April_2022.png)
Beach micro-litter polymers

% inside MPA

% outside MPA

Polyethylene - PE
Polyethylene - PE-HD
Polyethylene PE-LD
Polyetilen Tereftalato - PET
Polyurethanes
Poliammide
Polystyrene - PS
Polypropylene - PP
Polyvinyl chloride - PVC
Seafloor macro litter

- Plastic: 35%
- Metal: 41%
- Rubber: 18%
- Wood processed: 6%
- Glass/ceramic: 6%
- Paper/cardboard: 41%
- Textiles: 35%
- Others: 6%

Average density 0.7 items per 100 m²
Floating micro litter

Polymers

Type

2190 items
Source of litter

● Litter come from streams and littoral coastal transport
● Illegal disposal of waste
Actions implemented

- Beach cleaning campaigns by volunteers of MPA
- Extraordinary beach cleaning campaigns organized by the municipal administration

2020-2021

2.7 tons of litter
5 clean beach events
1 tons of litter cleaning days
Actions implemented

- **The River Contract** (act of shared commitment by public and private entities interested in various ways in waterways (and in the hydrographic systems connected to them, such as aquifers, coasts, wetlands, etc.))

**Target**: identification of a common vision and methods of work and action to pursue environmental requalification and sustainable socio-economic regeneration of the river system.
Mitigation actions

- Awareness raising campaigns
- Removal abandoned or lost fishing gear
- Improving solid waste management systems and practices
Thank you!

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www.plasticbustersmpas.interreg-med.eu

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