

RESOURCE PACK
ON MARINE LITTER MONITORING
IN THE MEDITERRANEAN

PLASTIC BUSTERS CAP



REGIONE AUTONOMA DE SARDIGNA
REGIONE AUTONOMA DELLA SARDEGNA



Plastic Busters CAP



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This document has been developed within the framework of the ENI CBC Plastic Busters CAP project.

The document reflects the authors' views and does not commit the donors.

Plastic Busters CAP in a nutshell

Marine litter is globally acknowledged as a major societal challenge of our times due to its significant environmental, economic, social, political and cultural implications. The Mediterranean Sea is one of the areas most affected by marine litter worldwide. Marine litter is found lying on the shores, as well as floating anywhere from the surface to the bottom of the sea. Even in pristine environments of the Mediterranean, such as coastal and marine protected areas, marine litter is building up, threatening habitats and species. Impacts vary from entanglement and ingestion, to bio-accumulation and bio-magnification of toxics released from litter items, facilitation of introduction of invasive species, damages to benthic habitats, etc.

The Plastic Busters CAP is an ENI CBC MED funded project aiming to facilitate decision-makers and stakeholders in effectively tackling the problem of marine litter by integrating EbM (Ecosystem-Based Management Approach) into ICZM (Integrated



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Coastal Zone Management) planning towards good environmental status. The project entails actions that address the entire management cycle of marine litter, from monitoring and assessment to prevention and mitigation actions. The project in the long-term will contribute to enhancing ecosystem services via a reduced leakage of marine litter and marine plastic pollution in the Mediterranean Sea and reduced emissions of greenhouse gases by a wise-use and sustainable disposal of plastics.

Plastic Busters CAP is a 24 month-long project, with a total budget of €1.109.976,27 million and is co-funded by the European Union under the ENI CBC MED Programme 2014-2020. It brings together partners from 7 countries of the Mediterranean region, namely Egypt, Greece, Italy, Jordan, Lebanon, Spain and Tunisia.

The backbone of Plastic Busters CAP is the Interreg Med Plastic Busters MPAs; both projects deploy the multidisciplinary strategy and common framework of action developed within the Plastic Busters Initiative led by the University of Siena and the Sustainable Development Solutions Network Mediterranean. This initiative frames the priority actions needed to tackle marine litter in the Mediterranean and was labelled under the Union for the Mediterranean (UfM) in 2016, capturing the political support of 43 Euro-Mediterranean countries.

Reading guide

This resource pack has been developed within the framework of the ENI CBC Plastic Busters CAP project. It features selected key training materials and resources on the issue of marine litter monitoring and assessment that give shape and form to the foundation

of the knowledge transferring and capitalization actions of the Plastic Busters CAP project aiming to enhance capacities and skills of stakeholders on the implementation of marine litter monitoring and assessment campaigns.



Key terms & definitions

Within this resource package the following terms and definitions are used:

Monitoring strategy

The experimental design of the monitoring strategy; it outlines the survey sites and the associated survey sites selection criteria, the timing and frequency of the surveys, the survey method.

Monitoring

Monitoring is a long term, standardized measurement, observation, evaluation and reporting of the environment in order to define status and trends.

Marine litter

Marine litter is defined as any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment.

Marine litter monitoring

Marine litter monitoring aims to provide information on the types, quantities, distribution and impacts of marine litter; to identify the sources of marine litter; and to assess the effectiveness of management measures to address the issue.

Macrolitter

Litter items larger than 25 mm in the longest dimension, with no set upper limit.

Mesolitter

Litter items from 5 mm to 25 mm in the longest dimension.

Monitoring protocol

A detailed description of the procedural method for monitoring marine litter pollution, including a classification list of litter types.

Microlitter

Litter items smaller than 5 mm in the longest dimension, with no set lower limit.



The policy context

The main legislative frameworks related to marine litter monitoring in the Mediterranean are the Barcelona Convention Ecosystem Approach (COP19 IMAF Decision IG.22/7) and

associated Integrated Monitoring and Assessment Programme; the EU Marine Strategy Framework Directive (2008/56/EC, 2010/477/EC, 2017/848/EC).

The Marine Litter Operational Objectives and respective Indicators within the framework of the Barcelona Convention Ecosystem Approach and the Integrated Monitoring and Assessment Programme (IMAF).

ECOLOGICAL OBJECTIVE 10 (EO10):

Marine and coastal litter do not adversely affect the coastal and marine environment.

Marine Litter and the Barcelona Convention Ecosystem Approach

IMAF CANDIDATE INDICATOR 24:

Trends in the amount of litter ingested by or entangling marine organisms focusing on selected mammals, marine birds, and marine turtles.

IMAF COMMON INDICATOR 22:

Trends in the amount of litter washed ashore and/or deposited on coastlines (including analysis of its composition, spatial distribution and, where possible, source).

IMAF COMMON INDICATOR 23:

Trends in the amount of litter in the water column including micro plastics and on the seafloor.

The Marine Litter Descriptor and respective criteria within the framework of the EU MSFD.

Marine Litter
within the EU
MSFD

Properties and
quantities of
marine litter do
not cause harm
to the coastal
and marine
environment
(Descriptor 10)

**CRITERIA D10C1 -
PRIMARY:**

The composition, amount and spatial distribution of litter on the coastline, in the surface layer of the water column, and on the seabed, are at levels that do not cause harm to the coastal and marine environment. Member States shall establish threshold values for these levels through cooperation at Union level, taking into account regional or subregional specificities.

**CRITERIA D10C4 -
SECONDARY:**

The number of individuals of each species which are adversely affected due to litter, such as by entanglement, other types of injury or mortality, or health effects. Member States shall establish threshold values for the adverse effects of litter, through regional or subregional cooperation.

**CRITERIA D10C2 -
PRIMARY:**

The composition, amount and spatial distribution of micro-litter on the coastline, in the surface layer of the water column, and in seabed sediment, are at levels that do not cause harm to the coastal and marine environment Member States shall establish threshold values for these levels through cooperation at Union level, taking into account regional or subregional specificities.

**CRITERIA
D10C3 -
SECONDARY:**

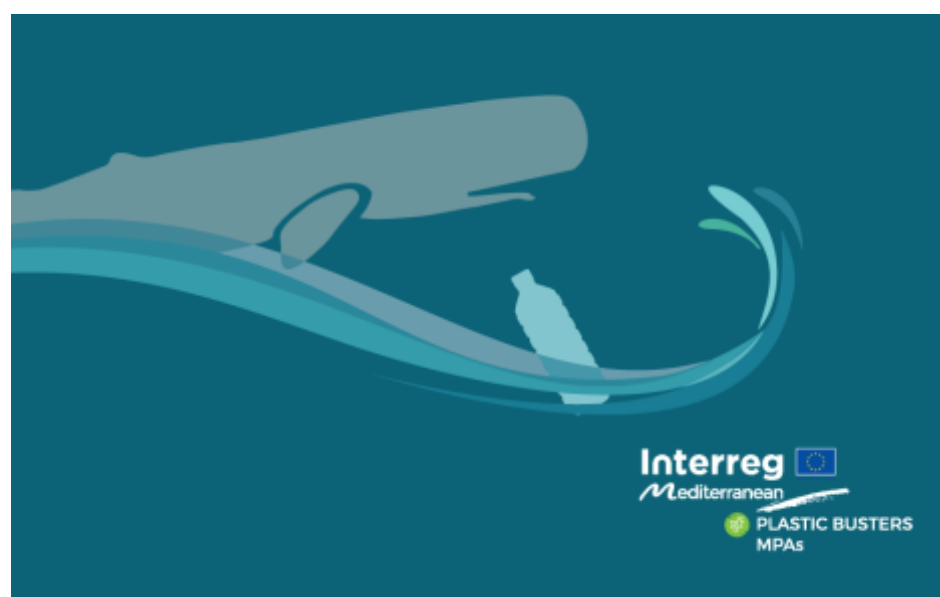
The amount of litter and micro-litter ingested by marine animals is at a level that does not adversely affect the health of the species concerned. Member States shall establish threshold values for these levels through regional or subregional cooperation.

The Plastic Busters MPAs e-learning module on how to monitor the presence and effects of marine litter

This self-paced e-learning module is designed specifically for the busy practitioner, conservationist, researcher, professional and student working for litter-free coasts and seas. By following this module, participants will learn how to design and implement marine litter monitoring campaigns and how to generate fit-for-purpose, reliable and comparable data on the presence and effects of marine litter, thus contributing with essential knowledge for a targeted response to address the urgent marine litter threat in the Mediterranean.



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● [Resource link](#)



This resource has been developed within the framework of the Interreg Med Plastic Busters MPAs project.

Find more info [here](#)



The Plastic Busters MPAs protocols on how to monitor the presence and effects of marine litter in Mediterranean MPAs

● [Resource link](#)



This resource has been developed within the framework of the Interreg Med Plastic Busters MPAs project.

Find more info [here](#)

This document features a compilation of all the protocols that should be applied in order to elaborate a comprehensive diagnosis of the presence and effects of marine litter in the Mediterranean. It takes stock of all recent advances made by the European Marine Strategy Framework Directive Technical Group on Marine Litter and the Barcelona Convention Correspondence Group on Monitoring.



Monitoring the presence and effects of marine litter in Mediterranean MPAs: the Plastic Busters MPAs protocols

PREPARED BY

THE INTERREG MED
PLASTIC BUSTERS MPAs PROJECT

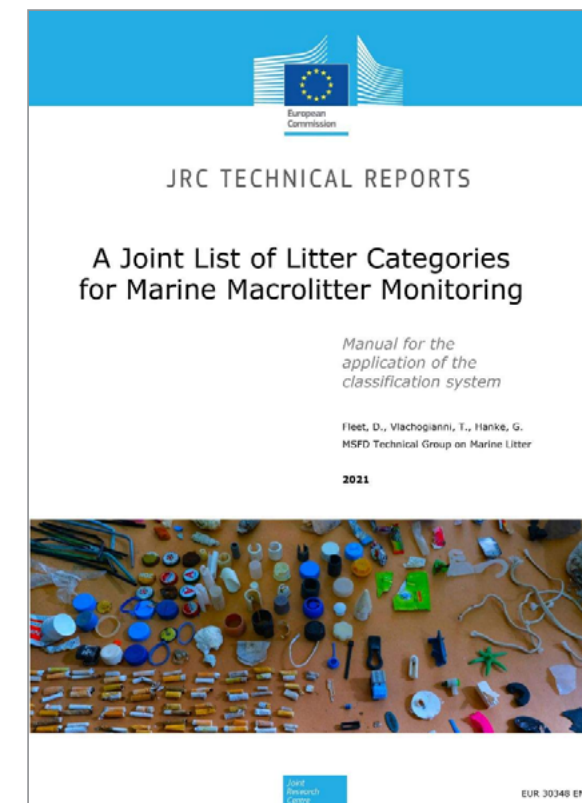


<https://plasticbustersmpas.interreg-med.eu>



The MSFD TGML Joint List of litter categories for marine macrolitter monitoring. Manual for the application of the classification system

In March 2021, the **EU Science Hub** of the Joint Research Centre released a new manual aiming to support people entrusted with monitoring marine litter to record the data they collect in a harmonised way. This will lead to the acquisition of more reliable and comparable data, enabling experts to better understand where to focus their efforts in keeping Europe's beaches and seas clean. The manual is a practical guide for applying the 'Joint List of Litter Categories' which is a 'standard' list of litter types commonly found in the coastal and marine environment of European Regional Seas.



● [Resource link](#)



This resource has been developed by the Marine Strategy Framework Directive Technical Group on Marine Litter.

Find more info [here](#)

The MSFD TGML online photo catalogue of the Joint List of litter categories

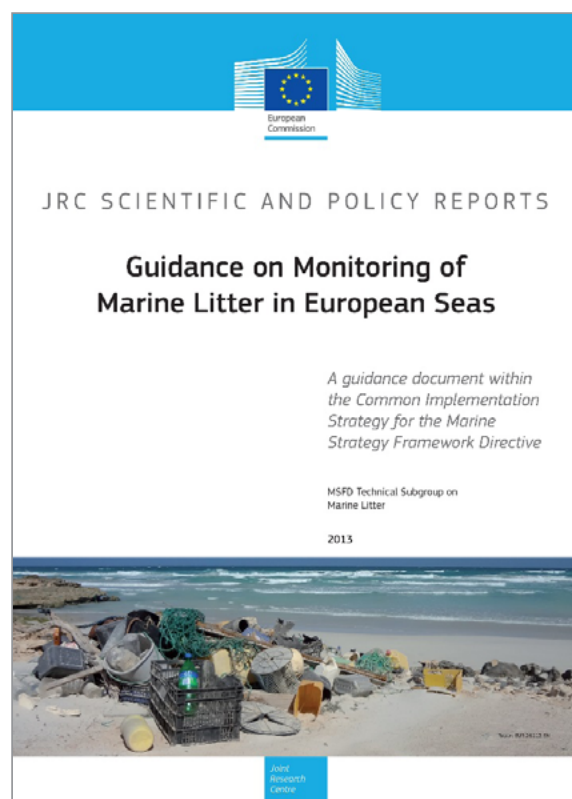
This **online photo catalogue** provides guidance for the attribution of macrolitter to specific categories in order to enable a harmonized monitoring data acquisition, which allows detailed data analysis. It is based on the MSFD TGML Joint List of litter categories for marine macrolitter monitoring.

● [Resource link](#)



This resource has been developed by the Marine Strategy Framework Directive Technical Group on Marine Litter.

Find more info [here](#)



● [Resource link](#)



This resource has been developed by the Marine Strategy Framework Directive Technical Group on Marine Litter.

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The MSFD TGML Guidance on monitoring of marine litter in European Seas

This guidance document aims to support EU Member States in implementing harmonized monitoring programmes for marine litter. This document is a living document that features the marine litter monitoring protocols that should be implemented in European Seas in order to support the Marine Strategy Framework Directive Common Implementation Strategy.

The UNEP/MAP Integrated Monitoring and Assessment Guidance on marine litter

This guidance document aims to support the establishment of a monitoring framework for marine litter in the Mediterranean within the scope of the Barcelona Convention Integrated Monitoring and Assessment Programme. This document draws largely on the UNEP Operational Guidelines for Comprehensive Beach Litter Assessment and on the MSFD TGML Guidance on Monitoring of Marine Litter in European Seas.

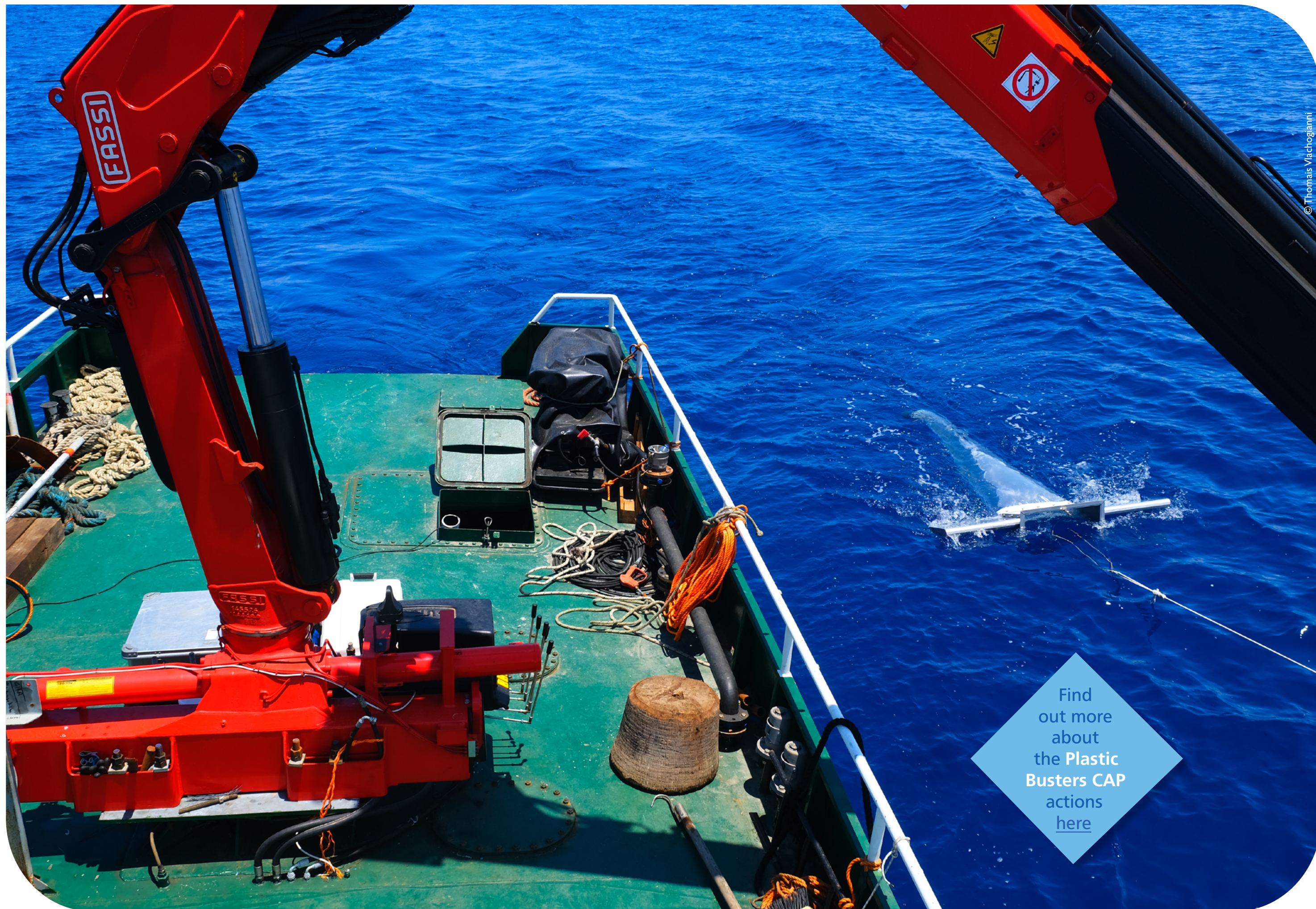
● [Resource link](#)



This resource has been developed by the United Nations Environment Programme/ Mediterranean Action Plan.

Find more info [here](#)





Find
out more
about
the Plastic
Busters CAP
actions
[here](#)

Acronyms

CAP	Capitalization
D10	Descriptor 10
EbM	Ecosystem-Based Management Approach
EC	European Commission
ENI CBC	European Neighbourhood Instrument Cross-Border Cooperation
EU	European Union
ICZM	Integrated Coastal Zone Management
IMAP	Integrated Monitoring and Assessment Programme
MPAs	Marine Protected Areas
MSFD	Marine Strategy Framework Directive
MSFD TGML	Marine Strategy Framework Directive Technical Group on Marine Litter
UfM	Union for the Mediterranean
UNEP/MAP	United Nations Environment Programme/ Mediterranean Action Plan



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For a litter FREE Mediterranean

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Cooperating across borders
in the Mediterranean



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المحلي للزراعي والبيئة
"Al-Ram Association for Local Community
Development of Pastures and Environment"



محمية شاطئ
صور الطبيعية
Tyre Coast
Nature Reserve



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