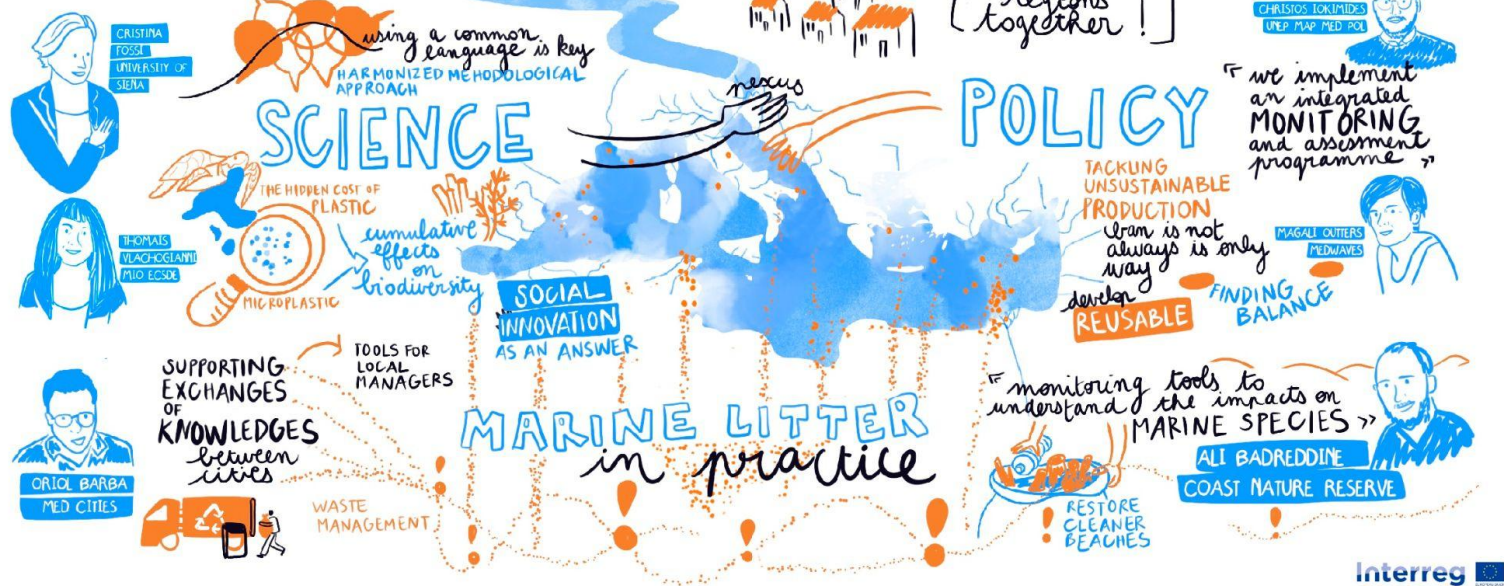


MEDITERRANEAN BIODIVERSITY CHALLENGES: ACTING AGAINST MARINE LITTER

By Interreg MED Biodiversity
Protection Community

UNFCCC COP27
Sharm El-Sheikh, Egypt



Fanny Didou Sketching The Move

Interreg
Mediterranean

MEDITERRANEAN BIODIVERSITY CHALLENGES: Acting Against Marine Litter

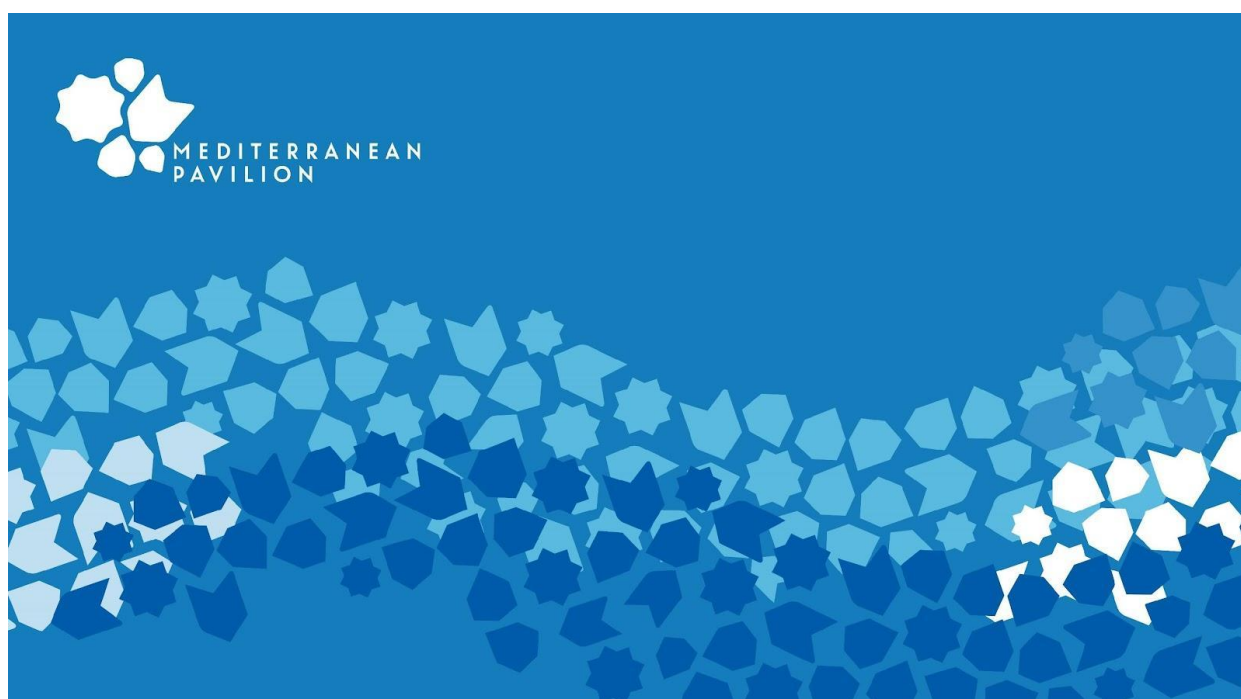
Hybrid session held at the MedPavilion during the
Climate change COP27 Biodiversity Day

16 November 2022 12:30-13:30 (CET +1)



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01. Introduction

On 16 November 2022, the day allocated to Biodiversity, at the UNFCCC COP 27 at Sharm El-Sheikh, Egypt, the Interreg Mediterranean Programme, supported by UNIMED Mediterranean Universities Union, held a 1-hour hybrid session led by the [Mediterranean Biodiversity Protection Community \(MBPC\)](#) in collaboration with the ENI CBC MED project [ENSERES](#) at the Mediterranean Pavilion, blue zone and online, entitled “**Mediterranean biodiversity challenges: Acting against marine litter**”. Speakers and panellists from across the region talked about the science, practice and policy, ongoing and needed, across the Mediterranean to combat the marine litter problem. The session agenda and speakers’ information are available [here](#).



We need to ensure a real involvement and engagement of local communities, stakeholder and civil society to be effective on the ground. Cross border cooperation is a key turn for working together in tangible solutions.

Dania Abdul Malak

ETC-UMA



Protect biodiversity in the Mediterranean is our priority, and we have adopted a methodology and an approach to generate data to monitor and to support a very strong scientific analysis.

Christos Ioakeimidis

UNEP MAP MED POL



The Mediterranean Sea is one of the 25 hotspot of biodiversity worldwide, but this biodiversity interacts with one of the area most exposed to marine litter. We try to define a common language in terms of monitoring activities, mitigation and governance.

Cristina Fossi

University of Siena



One complex aspect for municipalities is related to management because they are not familiar with international processes and sometimes competences of local authorities are limited.

Oriol Barba

MedCities



Climate change and marine litter are interlinked and understanding these connections is key managing their combined risks to marine biodiversity and ultimately society.

Thomais Vlachogianni

MIO ECSDE



Thanks to the cooperation programmes, in Lebanon we are creating tools to clean the sand on the beaches and to monitor marine litter and its impact.

Ali Badreddine

Tyre coast nature reserve (TCNR)



With our experience we know that there are many solutions to tackle marine litter, but regulating the issue of plastic is very difficult, we have to find a good balance and we need to have a very good knowledge at regional at national level.

Magali Outters

Team Leader Policy Area at MedWaves, the UNEP/MAP Regional Activity Centre for SCP



The region is doing a systemic effort, in human, technical and financial resources on marine litter, there is common agenda and projects, now we are at a stage where lot of practices need to be upscaled and capitalised.

Alessandra Sensi

UfM Head of Sector Environment and Green and Blue Economy

02. Marine litter and the Mediterranean

The Mediterranean Sea is considered one of the regions of the world **most affected** by marine litter, in particular plastics.

Current marine litter levels in the Mediterranean are higher than the thresholds identified in regional strategies, which is alarming.

The Mediterranean receives waste from land- and sea-based sources. Marine litter can be found lying on beaches and floating anywhere from the surface to the bottom of the sea.

- **Climate change** and **marine litter** contribute to the spread of non-native species. A range of species have been found rafting on marine litter, including crabs and invasive coral species.
- **Marine litter** threatens habitats and species, with impacts varying from entanglement and ingestion, to bio-accumulation and bio-magnification of toxins released from litter items, as well as damages to benthic habitats.
- **World-wide plastic production and use** is predicted to emit more than 50 gigatons of greenhouse gas emissions, which is equivalent to 10% of the entire remaining global carbon budget, considered as the “hidden cost of a plastic planet”.
- **Microplastics** can inhibit the efficiency of photosynthesis in phytoplankton and interfere with the carbon cycle of zooplankton.
- **Climate change**, through increased extreme weather events (e.g. floods, storms etc) can lead to higher inputs of litter into the marine environment, while increased temperatures can enhance the rate of marine litter breakdown into microplastics. Plastic also contributes to **greenhouse gas emissions** at every stage of its lifecycle, from its production to its refining, and the way it is managed as a waste product.

Marine litter undermines the climate resilience of marine ecosystems, adding threats to a Mediterranean region that is already considered a hotspot for climate change impacts.



*MBPC main recommendations to tackle marine litter in the Mediterranean.
Illustrations @ Yorgos/imagistan*

In 2021, the Interreg Mediterranean Biodiversity Protection Community refined their 9 recommendations to achieve a clean and healthy Mediterranean (section 03.e).

03. What are we currently doing to combat marine litter across the region?

ADOPTING A COMMON APPROACH TO MONITOR AND MITIGATE MARINE LITTER ACROSS THE REGION

The Plastic Busters MPAs project has been contributing to a harmonised marine litter monitoring approach around the region. It has identified common bioindicator species, including endangered and emblematic species such as the *Caretta caretta*, but also commercial species, to assess the impacts of litter on biodiversity.

In 2016, **UNEP-MAP MED POL** developed the Integrated Monitoring and Assessment Programme for the Mediterranean Sea and Coast (IMAP), to monitor and assess in a harmonised manner and through the establishment of marine litter indicators, the health of the marine and coastal environment. IMAP Ecological Objective 10 (EO10) focuses on “Marine Litter” with 2 Common and 1 Candidate Indicators, whereas IMAP EO1 and EO2 addresses “Biodiversity and Ecosystems” and “Non-Indigenous Species”. All Barcelona Convention Contracting Parties from Mediterranean countries, have already developed national IMAP-based monitoring plans, which are currently being implemented and operational, and are feeding data to the IMAP InfoSystem, the region-wide data repository.

IDENTIFYING MARINE LITTER HOTSPOTS

The Plastic Buster MPAs project has developed a biodiversity risk map for marine litter impacts across the region by overlaying areas of high levels of marine litter with high biodiversity presence.

INVOLVING MULTI-STAKEHOLDERS AND MULTI-SECTORS IN MARINE LITTER SOLUTIONS: REDUCTION AND PREVENTION MEASURES

There is no single solution that will address the marine litter problem in the Mediterranean. The solutions are as wide-ranging as the stakeholder groups required to implement them. Social innovation solutions, which tend to be less resource intensive than technological solutions, have a key role to play in terms of preventing litter entering the coastal and marine environment. This can be done for example, by banning certain single use plastics (SUPs) as in the case for Mediterranean EU countries and encouraging, supporting and incentivising the

reduction of SUPs, as in the case of SUPs-free businesses in particular in coastal tourism businesses and in marine protected areas (MPAs).

Improved waste management is a ready-made solution that should be applied to multi-stakeholders and sectors at different scales to help combat marine litter. There is an urgent need to strengthen waste management efforts across the region. A number of cities supported by local authority networks such as MedCities, have implemented improved waste management schemes, and testing measures addressing the recreational and retail sectors. Minimising plastic pollution in large events by eliminating SUPs and applying solutions such as the establishment of reusable cup deposit schemes, was mentioned as an example of a further concrete solution by Plastic Busters MPAs. Improved waste management efforts are also ongoing in the fisheries and aquaculture sectors with a move towards ensuring fishing gear is discarded and dismantled properly and ensuring they are inserted into the circular economy. Such actions have added co-benefits that include increasing awareness on the broader issues of marine litter in the region.

Other solutions include awareness raising campaigns, public-private agreements, social responsibility schemes and consumption levies. Marine litter can reduce the climate resilience of marine ecosystems. Many MPAs therefore are up taking a wide range of marine litter mitigation actions to help increase their adaptive capacity to climate change impacts.

It is necessary that local municipalities are guided and supported in their efforts to implement these types of initiatives. This can be done by facilitating their engagement in EU and Mediterranean projects and ensuring they are beneficiaries of available knowledge and tools in the region.

ALTERNATIVE MATERIALS AND TAPPING INTO THE WISDOM OF THE PAST

Alternative materials and practices are also important to help reduce marine litter. The feasibility of alternative materials such as natural materials or even multi-use synthetic polymers have been explored, in addition to drawing inspiration from traditional methods of the past. Mussel nets, for instance, are one of the top three litter items found in certain areas of the Mediterranean and, since this sector is increasing, so too is the threat from mussel nets. Plastic Busters MPAs has been exploring the use of vegetable fibres as an alternative material for mussel nets and the implementation of best practices for the sustainable management of mussel nets.

04. What more do we need to do?

ENHANCE INFORMATION AND KNOWLEDGE

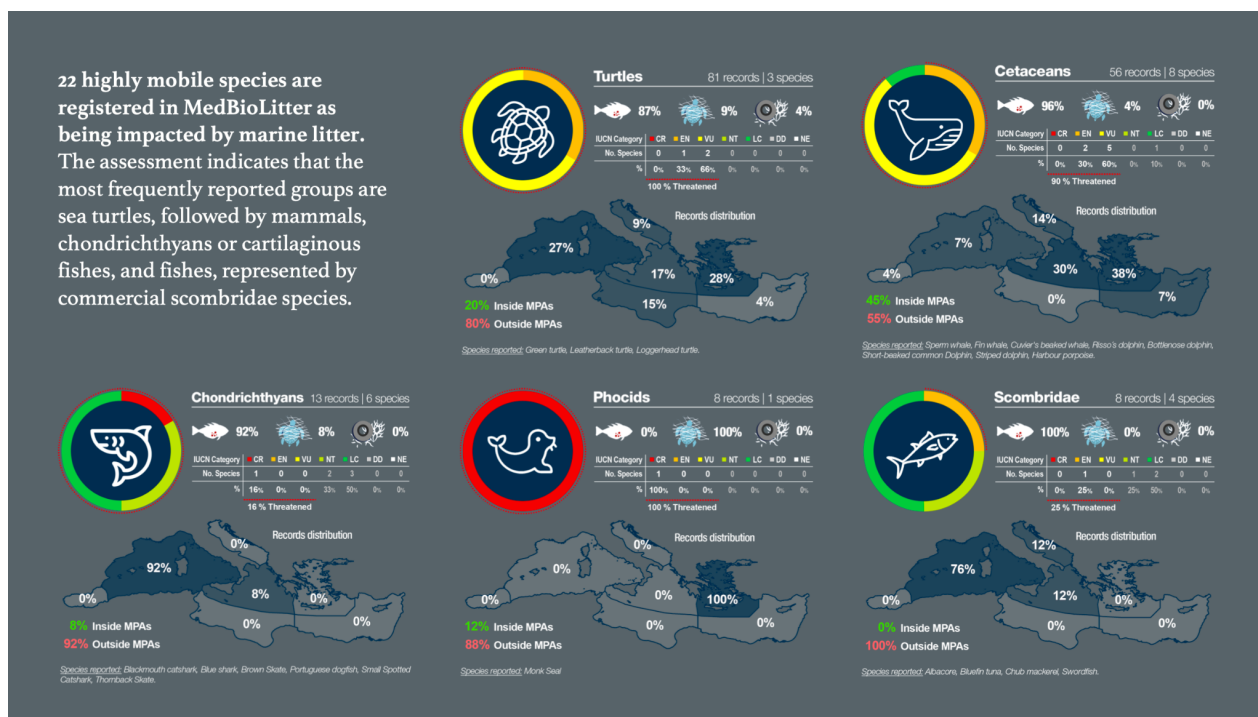
There are many tested solutions and methods for monitoring, preventing and mitigating marine litter and its impacts, but not all countries are aware or have the know-how to implement them. Furthermore, their transferability needs to be assessed based on local conditions. Transferring knowledge and building capacity across all countries, will enable a more balanced understanding of the marine litter problem across the wider basin and thus adapt a more regional approach to implementing solutions.

There is a need to increase basic information and understand potential trade-offs so that policy and action can be informed by evidence. Currently, in the Mediterranean, it is not widely known where plastics are produced, whether they are imported or exported and the potential socio-economic impacts of production, reduction and prevention measures applied across countries and the region. Furthermore, potential trade-offs and the implications of reducing/removing food packaging in relation to increased food wastage or increasing reuse versus more recycled content, still needs to be fully understood to inform policy decisions and to avoid shifting the environmental burden from one area to another.

In fact, we are only now beginning to even realise other important information that we do not have but is equally important. For example, it has recently been discovered that there are around 13,000 substances linked to the production of plastics, a quarter of which are substances of concern. The potential impact of those substances on the marine environment and human health is still not yet fully understood.

MONITOR THE EFFECTIVENESS OF MEASURES: REFINE BASELINES AND THRESHOLDS

Now that many solutions and measures have been applied and replicated across the region, it is critical that we can determine their impact. Work is currently ongoing to develop and finalise Good Environmental Status (GES)-related assessment criteria, including updating Baseline Values (BV) and establishing Threshold Values (TV) for the IMAP and EU Marine Strategy Framework Directive (MSFD) respective Ecological Objectives and Descriptors. In 2021, UNEP/IMAP adopted updated BVs and established TVs for IMAP Common Indicator 22. Work is currently ongoing for IMAP Common Indicator 23 and Candidate Indicator 24.



Summary of MedBioLitter data on reported species (2022)

INVOLVE ALL SOCIETAL ACTORS

All societal actors have to play an essential role in combating the marine litter problem in the region. They need to be made aware of alternatives, impacts and pollution reduction actions and urgently change their behaviour and practices to reduce their ecological footprint. To address the marine litter problem, we need to not only change systems but also behaviours. Social innovation schemes can be more feasible than highly technological, resource dependent changes. However, we need to remember that reduction is the best strategy.

SCALE UP PRACTICES

The many solutions and practices that address the marine litter problem in the Mediterranean need to, and have the potential to be scaled up. Marine litter affects the entire Mediterranean basin and therefore needs to be addressed at the regional level.

Regional bodies such as the UfM, and UNEP/MAP including its Regional Activity Centres, as well as regional networks such as MedCities and MIO-ECSDE are actively helping in bringing the region together and supporting the transfer and uptake of science-based policy and management solutions across the Mediterranean. In addition, they help link the different

initiatives and projects to ensure complementarity and maximisation of results. This is particularly critical to promote enhanced north-south cooperation to ensure that the fight against marine litter and its impacts is more geographically balanced throughout the entire basin.

Although solutions and measures have been implemented specifically in MPAs, some have been tested and replicated in a variety of contexts, including urban areas, north and south of the Mediterranean and other parts of the world. As such, these can be transferred and upscaled even beyond MPAs. Lastly, pooling resources will be essential to tackle marine litter at a regional level. Marine litter is a Mediterranean-wide problem and as such requires Mediterranean-wide solutions. To ensure concrete actions across the basin, human, technical and financial resources need to be pooled and applied in a balanced way towards a common agenda.

05. Videos and useful materials

- [Presentation speakers](#) @COP27 MBPC session on 16 November 2022
- [Video: Mediterranean Marine Litter](#) by illustrationist Yorgos/imagistan
- [Video: Invisible toxic chemicals and our everyday products](#)
- [MedBioLitter interactive dashboard](#)
- [Marine megafauna and litter in the Mediterranean factsheet](#)
- [MedBioLitter knowledge base and spatial viewer](#)
- [MARLICE 2022 Report on MBPC events](#) in Marlice Natura, 19 May 2022
- [Mediterranean solutions towards zero pollution impacts on biodiversity and health](#) – EU Green Week workshop report, 4 June 2021
- [Marine litter and protected areas - Focus on Montenegro - capacity building workshop](#) report, 29 June 2021
- [Mediterranean Biodiversity Protection Knowledge Platform](#)
- [The Mediterranean ecosystem-based management approaches Declaration](#)
- [Catalogue of Mediterranean biodiversity protection and management tools](#)
- [More about MBPC and marine litter](#)
- [Press coverage by EurActiv](#)
- [Interreg Euro-Med webpage about the event with video and speakers booklet](#)
- [About the Mediterranean Pavilion](#)

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CONTACT US:

panacea-med@uma.e

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