

### THE ROLE OF MARINE PROTECTED AREA NETWORKS IN THE PROTECTION OF BIODIVERSITY IN THE ADRIATIC IONIAN REGION IN THE FRAMEWORK OF THE PROPOSED MASTERPLAN

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## MARINE PROJECTED AREA



# Role of the MPAs

They protect critical habitats from damage due to destructive fishing practices and other human activities and allow them to recover, helping to maintain cultures, economies and local means of subsistence, intrinsically linked to the marine environment

They provide areas where fish can reproduce and grow to their adult size MPAs protect **apex predators** which give greater stability to coastal environments and which, in turn, mitigate the instabilities induced by **climate changes** 

Global climate regulation by reduction of greenhouse gas concentrations and carbon sink They **conserve biodiversity** and **provide shelters** for endangered and threatened species.

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### IUCN standards for MPAs

"A protected area is a clearly defined geographical *space*, recognised, dedicated and managed, through *legal or other effective means*, to achieve the *longterm conservation* of nature with associated ecosystem services and cultural values"



#### Conservation

Nature as priority

Goals and objectives

Defined and related with nature values

Design

Suitable size, location for values conservation



Management plan (or eq) Address needs for values conservation and objective achievement



Resources

Suitable financial means to implement plan and to reach objectives



Following the European Green Deal, the European Commission adopted, on 20 May 2020, Communication COM/2020/380 on an "EU Biodiversity Strategy for 2030 – Bringing nature back into our lives"

protect at least 30% of the sea in the EU, of which 10% under strict protection

defined conservation objectives and measures to the new areas to be designated but also to all existing areas

assess the *management effectiveness* of protected areas

Number of protected areas in the world

# 18.431

Percentage of oceans covered by protected areas

8,17%

Total area under protection

### 29.585.205 km<sup>2</sup>



UNEP-WCMC and IUCN (2023), Protected Planet: The World Database on Protected Areas (WDPA) [Online], September 2023, Cambridge, UK: UNEP-WCMC and IUCN. Available at: <u>www.protectedplanet.net</u>.

Surface marine protected areas in the Mediterranean

## 235.587 km<sup>2</sup>

Aegean Sea 6.68%

Pariaxic Gea

Ionian Sea 5.65%

Mediterranean Sea - Eastern Basin

Astrony Cor

Mediterranear Sea - Western Bastr 16.09%

Balearic (Iberton Sea) 66.08%

Alboran Sea 9.21%

Protected sea percentage in the Mediterranean







#### Conservation sites within the Adriatic and Ionian Seas



12% of MPAs with management plans

1% of MPAs with sufficient staff

4% of MPAs with sufficient budget









| Assignment by<br>Apulia Regione of<br>management since<br>2019 |  | No zonation |   | Conservation<br>measures adopted<br>by Regional<br>Council |  |
|--|--|-------------|---|--|--|
|  | Environmental<br>impact assessment<br>as single<br>management tool |             | No effective<br>surveillance and<br>adequate law<br>enforcement |  |  |

## 7.669 hectares

NO TAKE ZONE
GENERAL RESERVE
PARTIAL RESERVE
Torre Guaceto e Macchia S. Giovanni - ZSC MARE



Presence of determinant biocoenoses *outside MPA* 

















SOCIO-ECONOMIC ANALYSIS FOR ENVIRONMENTAL ACCOUNTING SURVEYS

FOCUS GROUPS











#### End of '22 (?)

 Approval by the competent Municipalities

#### End of '23 (?)

 Conclusion of the enlargement process

#### October '22

 Involvement of ISPRA (Higher Institute for Environmental Protection and Research)

#### October '22

 Presentation of the proposal to the competent Ministry



MYSEA project is aimed at strengthening the Sea Turtle Recovery Center Network in the Puglia Region (Torre Guaceto, Manfredonia, Barletta, Rauccio e Calimera)

Sea turtles represent a family that is closely linked to environmental variables such as sea temperature and currents.

The activity of monitoring the species with satellite transmitters will be related to an assessment of the marine environmental conditions and how they affect the neritic phase of the species, especially in sub-adult and adult individuals

> Evaluating the evolution of the routes in relation to the water temperatures recorded by the sensors on the turtles and monitored through the CMCC models will allow to detect possible patterns in the late winter and spring period, fundamental for reproduction

Marine turtles tracking
Main feeding areas
Main feeding areas and overwintering areas

The interaction between the recorded oceanographic information, the oceanographic models provided by the CMCC and the routes detected with the satellite provides important information on the Adriatic-Ionian population of this species, constituting an innovative research and monitoring model available to the regional network of recovery centers *Sea surface temperature* 



Nesting potentiality





Turtles monitored between 2020 and 2023 showed high fidelity to the southern Adriatic and Ionian area.

This monitoring program allows us to identify high priority areas for this species, where it will be necessary to draw up specific species conservation plans which must involve Italy, Albania, **Montenegro and Greece** 



Region not assessed

## MONTENEGRO

# PUGLIA





https://www.instagram.com/torreguaceto/

Thanks for your attention