


Interreg 
Mediterranean

 MPA Engage

 @MPAEngage

MPA ENGAGE

Engaging Mediterranean key actors in Ecosystem Approach to
manage Marine Protected Areas to face Climate Change
Impacts

Capitalization Event / Lorenzo Merotto

Programme co-financed by the European
Regional Development Fund

Portofino Marine Protected Area



Consortium of five Organizations

(3 Municipalities within the borders, Genoa Municipality and University of Genoa)

Since **1999**

Extension : **346 ha**

Coast typology: **Cliff**

Marine habitat:

Rocky bottom, coralligenous, Seagrass meadows

Key pressures :

-high concentration of different users (stakeholders) in a small area

-impact of fishing gear on coralligenous

-impact of climate change



Climate Change in Portofino MPA

Maecenas ullamcorper interdum convallis. Donec elementum orci commodo, sagittis velit porttitor, tristique quam. In iaculis nisl nibh, quis lacinia risus iaculis sodales. Praesent non leo enim.



Mass Mortality Events

in the last 30 years there has been an intensification of mass mortalities of benthic organisms (primarily gorgonians) but also fish (grouper)



New Species

In the last 20 years an increase of thermophilic species has been observed.



Meteorological events

Over the years, weather events such as floods and storm surges have intensified in frequency and intensity



Threat for socio - economic

economic activities such as diving and fishing may be affected by climate change.



Monitoring methodologies in Portofino MPA

Total of 11 Monitoring protocols:

7 already implemented:

*T Sensors**, *Mortality Assessment**, *Visual Census**, *Pinna nobilis**, *Posidonia oceanica**, *LEK 1&2*

4 in testing phase:

Sea Urchin, *Rapid Benthic Detection*, *Photogrammetry*, *LEK3*



Harmonized
monitoring



participatory
approaches

Vulnerability
assessments



Citizen
Science

* Already routinary for Portofino MPA





Citizen Science

Involvement through trainings, events and citizen science days

2/4 protocols for Citizen Science applied in Portofino MPA
(Mortality Assessment, Visual Census)

From September 2020, 8 trainings were conducted, involving more than 100 divers.



Harmonized monitoring



Vulnerability assessments



participatory approaches

Citizen Science





Monitoring methodologies in Portofino MPA



Tend to be simple to execute/ provide know-how to MPA Staff



If an MPA has qualified scientific staff, even in small numbers, these protocols can be performed in-house within the MPA.

Immediate feedback on habitat status

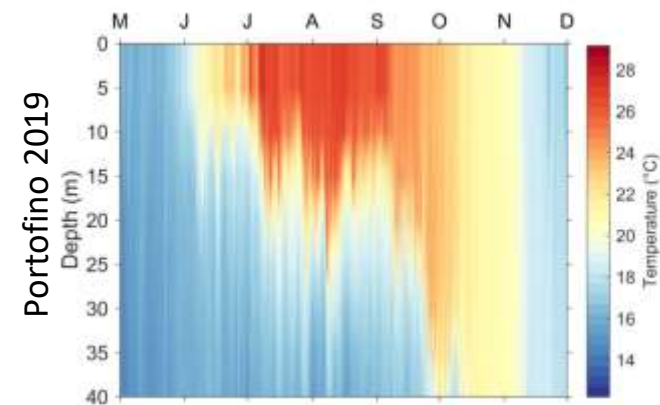


Almost all protocols give immediate feedback without the need to process the data before making it usable.

Useful also from a management point of view



These monitoring protocols "cover" different compartments providing an overview of the status of the environment within the MPA. Therefore, they not only have a very important function with respect to climate change monitoring, but also in the management of the MPA itself.





Monitoring methodologies in Portofino MPA



Protocols already known



Some protocols coincide with those already performed routinely by the MPA (e.g Pinna nobilis, Posidonia oceanica)

MPA staff is overloaded of work

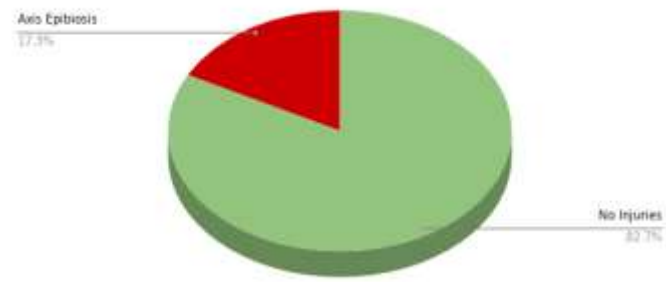


Scientific staff is reduced in number and manages both technical and financial part, in addition to the routine activities of the MPA routinary activities, so we have to make choices about the protocols to be carried out regularly.

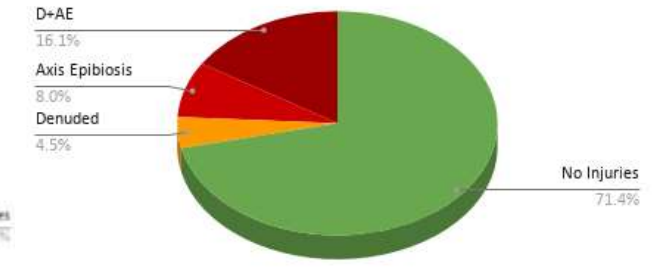
Working with a research institute

For greater efficiency we collaborate with the University of Genoa to perform some protocols together.

Torretta 35m - 9/7/2020



Torretta 35m-11/11/2020





Citizen Science



Learning the monitoring protocols/ data collection and sharing



Divers learn how to collect data via the use of user-friendly protocols and share these data with MPAs and researchers, providing a valuable aid to science.

The massive involvement of divers makes it possible to have a very high number of observers, constantly at sea, capable of reporting unusual phenomena.



Raise awareness in users (divers)



It allows you to educate and let users know about aspects of which they were unaware. Including the activities and operations of an MPA. Citizen science allows users to "open their eyes" and notice aspects ignored up to that point.



Facilitate participatory approaches and co-management



Involving users in MPA activities makes them more collaborative and willing to engage in dialogue in order to improve management.





Citizen Science



They're economic activities



Being companies, in the months of greatest activity (so with more income) the divers are busy and less likely to implement citizen science actions ... if not properly stimulated

Constant work and training to involve them

In order to engage users efficiently and sustainably, constant and strenuous work is also required through regular trainings..

New opportunities for diving centers



Diving centers can be stimulated to propose this activity as a possible attraction for their customers



Thank You



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