

MedSeA project website:

<http://medsea-project.eu>

MedSeA information outlet on Ocean Acidification,  
Climate and Environmental Change:

<http://medseacimatechange.wordpress.com/>

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The "Mediterranean Sea Acidification in a changing climate" (MedSeA) project started in 2011 and is funded by the European Commission under Framework Program 7.

The total MedSeA budget is about EUR 6 M, including EUR 3.5 M from the European Commission.

MedSeA involves 20 partners from 12 countries (with 14 institutes from Mediterranean countries).

MedSeA assesses uncertainties, risks and thresholds related to Mediterranean Sea acidification at organismal, ecosystem and economical scales.

MedSeA investigates and advises on potential regional adaptation and mitigation strategies.

Scientific findings are communicated to a wide audience, including key stakeholders, such as marine managers, conservation organisations, industry, policy makers and the public.

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**MedSeA is endorsed by:**



# Mediterranean Sea Acidification in a Changing Climate

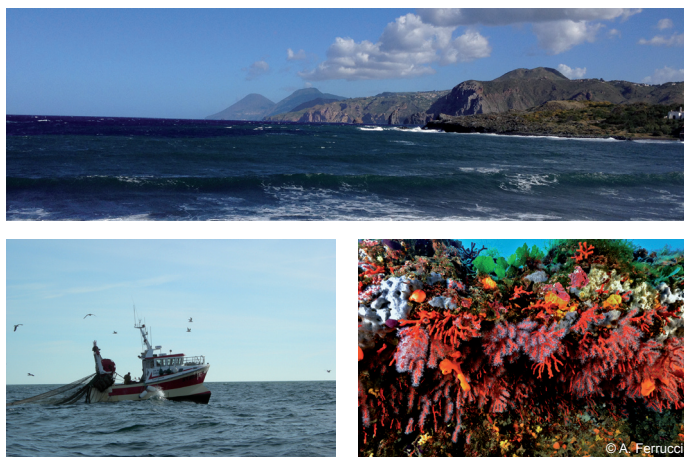


# Mediterranean Sea Acidification in a Changing Climate (MedSeA)

Assessing uncertainties, risks and thresholds related to Mediterranean Sea acidification

## Ocean acidification

The ocean plays an important role in providing humans with nutrition, social and economic activities. It also acts as a carbon sink - absorbing about 30% of atmospheric CO<sub>2</sub> released from human activities such as burning fossil fuels.

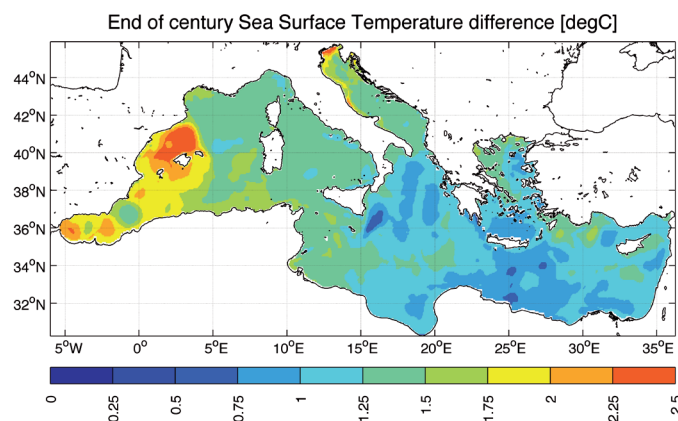


However, as more CO<sub>2</sub> is released into the atmosphere, the ocean has to cope with absorbing greater amounts at a faster rate. Through a series of chemical reactions, the CO<sub>2</sub> absorbed into the sea contributes to the lowering of ocean pH - the process known as "ocean acidification".



## What does it mean for the Mediterranean Sea?

- The Mediterranean is a societally and economically important sea.
- 22 countries surround its coasts with an estimated total population of more than 400 million people and 175 million more visiting the region each year.
- The ecosystems of this semi-enclosed sea are already stressed by increased temperature, overfishing, invasion of alien species and eutrophication.



It is essential that scientists learn what ocean acidification is doing to the Mediterranean Sea. How does this affect sea water chemistry and the organisms living in the sea? What does it mean to corals, sea grass and other ecosystems in the Mediterranean Sea? What will the Mediterranean Sea be like in the future? How will ocean acidification affect our social and economic relationship with the sea?

## Mediterranean Sea Acidification in a Changing Climate (MedSeA) project

To understand the potential impacts of ocean acidification in the Mediterranean Sea, the project Mediterranean Sea Acidification in a Changing Climate (MedSeA) examines how key biogeochemical and ecosystem processes will be affected.

### MedSeA objectives

- Identify areas of high impact, focusing on ocean chemistry and marine life
- Project the potential changes in the chemistry of the Mediterranean Sea
- Provide assessments of risks and sustainability of ecological and economically important species
- Collect key data around this enclosed sea to feed ecosystem models to help predict future changes



### MedSeA scientific research examines

- Mediterranean Sea oceanography and carbonate system
- Plankton and benthic response to Mediterranean Sea acidification
- Projections of future changes
- Socio-economic assessment of ocean acidification