

## Black Sea: connecting continents and civilizations

Linking Asia with Europe, the Black Sea region represents the connecting bridge and border between East and West, being characterized by complex structure and evolution. With unique features, the basin is under the influence of large hydrographic systems, much more extensive than the sea itself. Its average salinity is half that of the World's Ocean. And most of it is devoid of oxygen, from less than 200 meters below sea level to its abyssal part, at over 2.200 meters deep.

The lack of oxygen is a consequence of its evolution in recent geological time. This feature helps us understand how the oil and gas deposits were formed in the history of our planet. Black Sea shelters rare species, some of them surviving for hundreds of millions of years, many being currently endangered. Since its beginnings, it has facilitated the development of human civilization on its shores.

However, little is known about this particular environment and the most difficult question to answer is: „How can we understand the processes that occur in the Black Sea region?

Assuming that, nowadays, we are more aware of the surface of Mars than of the World's Ocean depths, interdisciplinary marine research efforts at all levels are needed. Furthermore, the sea is ours, everyone's, this is why marine sciences must bring together experts from different countries, with expertise in different fields.

And the success for a detailed understanding of the Black Sea and its processes can only come through interdisciplinarity and joint actions of researchers from the region, but also from experienced people from other sea basins. Almost a decade ago, specialists from Black Sea coastal countries, with the support of European Commission (Directorate-General for Research and Innovation and Maritime Affairs), started to develop a Strategic Research and Innovation Agenda in the Black Sea region.

This document addresses the systematic study of the basin characteristics and processes, looking for new and innovative solutions for a healthy and productive Black Sea by 2030, at the same time empowering citizens to protect and promote its marine resources. The document also aims to support a complex monitoring system, which will constantly inform us about possible ecological crisis and associated problems, in order to solve them effectively. As the results obtained from the scientific research should be at the service of humanity as a whole, the Strategic Agenda also intends to promote the development of new innovative business that would bring the fourth scientific revolution to the service of the „Blue Economy”.

The Strategic Research and Innovation Agenda for the Black Sea was launched in Bucharest during the Romanian Presidency of the Council of the European Union, in May 2019, being currently revised and adapted to the specific needs of each Black Sea riparian country, through the Black Sea CONNECT project, funded by the European Commission (through the Horizon 2020 Framework Programme - Directorate-General for Research and Innovation) and coordinated by METU (Turkey). Through this project, the most important marine

research initiatives of Europe and beyond are being made accessible to the scientific community from the Black Sea, whilst examples of good practice already established in the area are presented to colleagues from different regions. Through Black Sea CONNECT, an important role is given to the next generation of experts, but also to general public, who must be better informed about the challenges and opportunities in the Black Sea region. Therefore, several young people from each riparian state were selected to become true "Black Sea Ambassadors." The ideas resulting from this project will be continued in two other major projects, also funded by the European Commission: DOORS and BRIDGE. In all these projects a major role is played by two national institutes from Romania, GeoEcoMar and the Institute for Marine Research „Grigore Antipa”.

English adaptation of National Geographic – Romanian Edition – May 2021:

<https://www.natgeo.ro/articole/romania/explorari-ro/38336-marea-neagra-conectand-continente-si-civilizatii>