

On the participation of research institutions from Moldova in the Black Sea Program

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The research interest and potential (human and logistic) of the Institute of Zoology of the Academy of Sciences of Moldova fit in with the following topics of the Horizon 2020 Black Sea Program: *Riverine systems in the Black Sea region (ecological status, morphology, human impact, water quality)* and *Material exploitation and ecological impact in the Black Sea Region (water nexus, environmental impact on water bodies and systems)*.

The Academy of Sciences of Moldova (ASM) has been performing for many decades an integrated monitoring of aquatic ecosystems, which includes abiotic (heavy metals, nitrogen, phosphorus, pesticides, PCB, etc.) and biotic (bacterioplankton, phytoplankton, zooplankton, zoobenthos and fish fauna) components and assessment of ecotoxicological state in the Dniester and Prut rivers. A range of its research programs and projects were/are focused on assessing the water quality, ecological status of aquatic ecosystems, determination of the runoff of the chemicals and hydrobionts in the Black Sea basin, and also on elaboration and implementation of new biotechnologies in aquaculture, aiming the remediation of the biodiversity of natural ecosystems. An important research objective consists in increasing the efficiency of measures for adaptation of river basins to climate change, which are taken at both national and transboundary levels.

All this, de facto, represents the ASM potential of cooperation with other research bodies, both academic and educational from Moldova and the countries within the basin of the Black Sea, in order to carry out a joint environmental monitoring in this European area. In the frame of carried out monitoring of aquatic ecosystems a special attention is given to the identification of potential ecological risks, including pollution, development and implementation of new biotechnology procedures for improving the environmental state. This kind of research data is extremely useful in awareness-raising campaigns at local and regional levels on reducing the pollution.