



Inventory of port/coastal defence structures along the Bulgarian-Romanian part of the Western Black Sea coast

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The Bulgarian and Romanian shorelines are indeed one and same part of the Western Black Sea coast. The Bulgarian coastline is a 412 km long, between cape Sivriburun on the north and Rezovska River on the south; and the Romanian coast has a length of 243 km from Vama Veche (the Bulgarian border) to the Danube Delta on the north. Despite these administratively divided coasts are part of the one entire shoreline, they differ at different sections from a geomorphological and geological points of view and thus comprising various types of coastal landforms (beaches, cliffs, firths, lagoons, mudflats, deltas etc.). At the same time numerous human activities have altered the natural evolution of the both coastlines to a considerable extent. Furthermore, the accelerated anthropogenic impacts have been recognized as prevalent modifiers of the coastal zone dynamic in recent decades. Both the Bulgarian and Romanian coasts have been highly developed and urbanised in particular over the last century, mainly past 50 years, which has lead to their technogenous occupation. A large number of different types of “hard” coast-protection structures as well as port developments have been installed along the two coastlines, applying various standards and methods for coastal defence, and using different terminologies for the structures. In addition, the nomenclature is still not standardized, and the same port/coast-protection structures used in Bulgaria and Romania have been described with different names.

Most recently a joint research project between Institute of Oceanology (BAS) and National Institute for Research and Development for Marine Geology and Geo-ecology (GeoEcoMar) towards generation of a Web geomorphic classification of the Western Black Sea coast (Bulgarian-Romanian) has been run. In this regard the present study is aimed to present the initial results of project implementation and it is a basic part of developing a joint GIS-based geomorphic typology to determine various types of landforms (natural/technogenous) along the Western Black Sea coast. At this point the research is mainly focused to inventory the multipurpose maritime constructions built along the Bulgarian-Romanian coast in definition of a joint specialized technical nomenclature. The main results would be generation of a common catalogue of all port and coast-protection structures and establishing unified technical terminology for the both coastlines. These results would be an important step to create a common classification criteria and hierarchy scheme based on geomorphologic and engineering research approaches for identifying natural landforms and human structures along the Western Black Sea coast.

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