

Influence of Geomorphological State on Location of Coastal Erosion

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Abstract

The many years of observations carried out along the Southern Baltic coast suggest that along many parts of the coast erosion is permanent. One of the reasons of coastal zone changes are the geomorphological predisposition of the closer and further nearshore zone inherited from the glacial and postglacial periods. Carried out investigations confirm that macro- and mesoscale forms on the seafloor play a basic role in the shaping of circulation systems. In result of their long, medium and short-term influence, erosion/accretion bistructures of various scales are generated in the nearshore zone and on the shore. Changes in the thickness of the coastal zone's dynamic layer, determined by means of parameterising the nearshore zone and basing on seismoacoustic profiling, are also indicators of the erosion/accretion system of the coastal zone. Analysis of obtained field data showed a distinct relationship between the systems of forms, the resources of the dynamic layer and the coastal erosion/accretion systems in the investigated regions of the Southern Baltic coast.