O39. MAIN TRENDS OF THE SAMBIANN COASTAL SYSTEM (SOUTH-EASTERN BALTIC) DEVELOPMENT: HOLOCENE LITHODYNAMICS AND RECENT COASTAL PROCESSES

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Synthesis of long-term geological research of the Russian part of the southeastern Baltic and its coastal zone allowed to establish boundaries, time of forming and structure of Sambian morpho-lythodynamic marine and coastal system. Studied system includes coastal zone (by the water depth about 30 m according to longshore storm wave currents impact) and adjacent silty-clay sedimentation basins. Development of Curonian Spit area in Late Pleistocene – Holocene was reconstructed based on marine geological and geophysical study and modeling. Comparative analyses of geological settings of the Curonian and Vistula Spits and lagoons has shown that the mechanisms of their development is significantly different. By late Holocene, the study area of southeastern Baltic Sea consisted of several lithodynamic coastal systems. By 5 ka BP both lagoon systems were formed. Evolution of spits and lagoons during last 5000 years caused development of similar morphological features. Vistula and Curonian lagoons transformed into sediment traps for alluvial deposits of Neman and Pregola rivers. Smoothening of the shoreline as a result of longshore sediment drift is a dominant coastal process.