



## **New data on the postglacial development of Narva-Luga Klint Bay (eastern Gulf of Finland)**

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The abstract presented new results of geophysical and geoarcheological studies of the formation of coastal marine sediments developed on the territory of the Narva-Luga Klint Bay. The study area is located within the coastal lowland of Narva and Luga Rivers, formed the largest (approximately 360 km<sup>2</sup>) lowland of the southern coast of the Gulf of Finland, located between an escarpment of the Baltic Klint and modern Gulf of Finland shoreline. A detailed geological study using ground-penetrating radar (GPR), drilling and the description and sampling of natural and anthropogenic outcrops revealed an accretion form that has not been considered by previous investigators. The conducted GPR profiling made it possible to establish erosion horizons shows the fluctuations of the Baltic Sea basin in the Holocene.

At the absolute level of 8.5 m (59.590946°N; 28.137433°E), there was a relatively long-term stabilization of sea level, the beach and submarine sand ridges, subsequently not affected by marine transgressions and preserved as relict forms in the relief, were formed. Comparing results received with the published data (Sandgren et al., 2004) about Littorina sea-level change permits to suppose that during maximal level of Littorina transgression the eastern part of Kuzemkino accretion form remained drained, representing a peninsula or island, surrounded by Littorina Sea from west and north-east.

According to archaeological data Kuzemkino formation was settled by ancient people after the Littorina maximum. Earlier (Gerasimov et al., 2010) it was suggested that during the Early Neolithic time there were only short-term camp sites on the spits.

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Sandgren, P., Subetto, D. A., Berglund, B. E., Davydova, N. N. & Savelieva, L. A. 2004: Mid-Holocene Littorina Sea transgressions based on stratigraphic studies in coastal lakes of NW Russia. GFF 126, 363–380.