

THE FIRST LATE PLEISTOCENE TRANSGRESSION AND CLIMATE CHANGES IN THE NORTHERN EURASIA AS DERIVED FROM ESR AND POLLEN STUDIES

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About a hundred datings on marine mollusc shells were obtained for the widespread deposits of the first Late Pleistocene (Eemian/Boreal) marine transgression. The latter provides an important marker horizon all over Northern Eurasia. Dating evidence gives ages within time interval from about 142 to 70 ka BP that suggest correlation of the first Late Pleistocene transgressions (and the time of a relatively low global ice volume) with some substages or the whole marine isotope stage 5. Reconstructions of landscapes and climate on the basis of detailed palynological investigation of Arapovichi type section (centre of the East European Plain) make it possible to establish that during the last interglacial, forest was dominant over most of the East European loess province. During the warmest periods, the forests consisted primarily of broad-leaved and coniferous/broad-leaved communities of European and Panholarctic elements. Several smaller climato-stratigraphical units and corresponding climate oscillations (thermoxerotic and thermohygrotic stages, substages, and 'endothermal' coolings) have also been distinguished within the interglacial that imply the complicated character of the interglacial event. Besides, palynostratigraphical record from Arapovichi suggests the existence of climatic oscillation between stadial and interstadial conditions just below the MIS 6/5e boundary: climatic amelioration was interrupted by a return to cold climate. It would be the reason, as indicated also by ESR for some raised marine deposits, that sea-level rise started in the Northern Eurasia prior the marine isotope stage 5.