

In the Late Pleistocene worldwide extinction affected many of large mammals. Steppe bison *Bison priscus* was one of the last mega herbivores which survived to Late Pleistocene and Holocene transition. In Europe it became extinct much earlier than in north-eastern Eurasia, where the youngest specimens are dated to around 9,000 years BP. The history of the species is still unknown and studied fragmentarily. It is mainly due to small number of specimens available in western European collections and poor representation in Late Pleistocene assemblages, despite its wide distribution across Eurasia. The paleontological and archeological records provide a source of data for examining the distribution, timing, and nature of the extinctions of the various taxa, especially those poorly studied such as *B. priscus*. The main aim of the study is the reconstruction of the diet and the pattern of habitat use by steppe bison from populations inhabiting different climatic and environmental conditions in Europe and Northern Eurasia in the Late Pleistocene. We focus on collections containing larger number of specimens to track changes in the food habits and habitat use in relation to environmental changes in the different biomes. We ask whether the steppe bison was a species with a narrow spectrum of diet and habitat use, making him less adaptable to dramatic environmental changes during the Late Pleistocene and Pleistocene/Holocene transition? This study is innovative due to the methodology which use for reconstruction of paleoenvironments and foraging ecology of large herbivores is increasing in recent years: carbon and nitrogen stable isotope content analysis of dated bone material, and three-dimensional dental microwear texture analysis (3D-DMTA). We hope that results of these analyses will shed some light on the paleoecology of steppe bison before its extinction and allow to clarify some aspects of evolutionary history of the species in Europe and the role of environmental change in megafaunal extinctions.