

On the Mass Extinction at the Cretaceous–Paleogene Boundary

Davit Berulava, Avto Buskhrikidze

dato.berulava038@ens.tsu.edu.ge

avto.buskhrikidze396@ens.tsu.edu.ge

Department of Geology, Faculty of Natural and Exact Science,

Iv. Javakhishvili Tbilisi State University

University Street 13, Tbilisi, Georgia, 0186

The presentation addresses the mass extinction event at the Cretaceous–Paleogene (K–E) boundary, which occurred approximately 66 million years ago and triggered a global reconstruction of the biosphere. It analyzes the main hypotheses, including the asteroid impact (Chicxulub crater) and the intensive volcanism of the Deccan Traps, as well as additional contributing factors such as sea-level regression, climatic fluctuations, atmospheric changes, anoxic conditions, and the disruption of biological networks. The presentation is based on stratigraphic, paleobiological, and geochemical data. It presents current interpretations of extinction mechanisms, the process of ecosystem collapse, and the environmental conditions that laid the foundation for the emergence of the Cenozoic era. The work highlights the relevance and explanatory strength of a multifactorial model in understanding the mass extinction at the K–E boundary.