

Prehistoric Population Dynamics – Extended

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Keywords: Demography in Prehistory, Cologne Protocol, density-based upscaling, population estimates, Lower Paleolithic

During the last two decades, methodologically interconnected projects at the University of Cologne investigated population dynamics of Prehistoric Societies. The so-called [Cologne Protocol](#) provides a consistent approach to estimate absolute population sizes as well as densities. Periods under consideration cover the Late Pleistocene (at Pan European scale, CRC 806 Project E1) and Holocene (for central Europe, LUCIFS). Altogether, estimates are currently available for 14 time-slices covering the last 40,000 years. Modelling of long-term population dynamics has been accomplished by interpolating between the obtained estimates using a logistic equation.

The presentation will introduce the modelled long-term dynamics at the European scale and discuss future directions for extending its spatial and temporal framework. From our currently ongoing work, we present two potential pathways: Firstly, extending the spatial dimension, we draw from existing maps on cultural units and transfer estimates of the Cologne Protocol via regression analysis. Secondly, focusing on a temporal extension into earlier periods of human prehistory, we include georeferenced data from the [ROCEEH Out of Africa Database \(ROAD\)](#) on site occurrence and distribution. By applying the geostatistical upscaling procedure of the Cologne Protocol and data transfer from well-studied areas, our aim is to refine existing models on global prehistoric population dynamics.

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