The population history of northeastern Siberia since the Pleistocene

Northeastern Siberia has been inhabited by humans for more than 40,000 years but its deep population history remains poorly understood. Here we investigate the late Pleistocene population history of northeastern Siberia through analyses of 34 newly recovered ancient genomes that date to between 31,000 and 600 years ago. We document complex population dynamics during this period, including at least three major migration events: an initial peopling by a previously unknown Palaeolithic population of 'Ancient North Siberians' who are distantly related to early West Eurasian hunter-gatherers; the arrival of East Asian-related peoples, which gave rise to 'Ancient Palaeo-Siberians' who are closely related to contemporary communities from far-northeastern Siberia (such as the Koryaks), as well as Native Americans; and a Holocene migration of other East Asian-related peoples, who we name 'Neo-Siberians', and from whom many contemporary Siberians are descended. Each of these population expansions largely replaced the earlier inhabitants, and ultimately generated the mosaic genetic make-up of contemporary peoples who inhabit a vast area across northern Eurasia and the Americas.