Northern Hemisphere (>40°N) biome reconstruction since 40 ka based on pollen data and modelling

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Pollen data from North America (1064 sites), Europe (1384 sites) and Northern Asia were extracted from available data bases. Pollen names were homogenized and assigned to plant functional types and then to biomes respectively, following the standard biome reconstruction procedure. The mean value of pollen taxa from all available pollen assemblages within a time window is selected as the "pollen sample" for a given time-slice. Then the reconstructed biome datasets were mapped and compared to with biome distribution estimated via biomisation of palaeoclimate data derrived from Earth System Models. Via sensitivity studies the driving factors of biome changes since 40 ka were investigated at hemispheric scale.