



A late Quaternary pollen dataset in eastern continental Asia for plant migration study, vegetation and climate reconstructions: set up and evaluation

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A total of 272 pollen records with reliable dating information and high temporal resolutions were selected from a large collection of both original and digitized pollen spectra from the eastern continental Asia (70°-135°E and 18°-55°N). After pollen percentage recalculations, taxonomy harmonization, and age model revision, pollen spectra were interpolated at a 500-year resolution, a taxonomically harmonized and temporally standardized fossil pollen dataset was established, which has 226 pollen taxa and covers the last 22 cal ka. Of the 227 pollen records, 85% were published during the last two decades with reliable chronologies and high temporal resolutions, and 50% have original data with complete pollen assemblages, all of them ensure the quality of this dataset. The available pollen records at each 500-year time slice are well distributed in all main vegetation types and climatic zones over the study area, making their pollen spectra suitable for palaeovegetation and palaeoclimate research. Such a dataset can be used as an example for the development of similar datasets in other regions of the world.