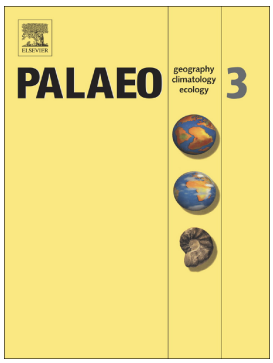

Vegetation change and evolutionary response of large mammal fauna during the Mid-Pleistocene Transition in temperate northern East Asia

Zhou Xinying, Yang Jilong, Wang Shiqi, Xiao Guoqiao, Zhao Keliang, Zheng Yan, Shen Hui, Li Xiaoqiang

PII: S0031-0182(18)30099-3
DOI: doi:10.1016/j.palaeo.2018.06.007
Reference: PALAEO 8811

To appear in: *Palaeogeography, Palaeoclimatology, Palaeoecology*

Received date: 4 February 2018
Revised date: 31 May 2018
Accepted date: 3 June 2018

Please cite this article as: Zhou Xinying, Yang Jilong, Wang Shiqi, Xiao Guoqiao, Zhao Keliang, Zheng Yan, Shen Hui, Li Xiaoqiang , Vegetation change and evolutionary response of large mammal fauna during the Mid-Pleistocene Transition in temperate northern East Asia. Palaeo (2018), doi:10.1016/j.palaeo.2018.06.007

Vegetation change and evolutionary response of large mammal fauna during the Mid-Pleistocene Transition in temperate northern East Asia

Zhou Xinying[1,3,4*], Yang Jilong[2], Wang Shiqi[1,3,4], Xiao Guoqiao[5], Zhao Keliang[1,3,4], Zheng Yan[1,3], Shen Hui[1,3], Li Xiaoqiang[1,3,4]

1.Key Laboratory of Vertebrate Evolution and Human Origins of Chinese Academy of Sciences, Institute of Vertebrate Paleontology and Paleoanthropology, Beijing 100044,China；

2. Tianjin Centre, China Geological Survey, Tianjin 300170, China;

3. University of Chinese Academy of Sciences, Beijing 100000,China；

4. CAS Center for Excellence in Life and Paleoenvironment, Beijing, 100044,China

5. State Key Laboratory of Biogeology and Environmental Geology, China University of Geosciences, Wuhan, 430074, China

Abstract

We present new pollen data from a drilling core from the North China Plain which illustrate the nature of vegetation evolution in the temperate zone of Asia during an interval containing the Mid-Pleistocene Transition (MPT), ~1.2-0.7 Ma. Results show that, from 1.7-1.2 Ma, closed needle-leaved and broadleaved mixed forest predominated. The most important vegetation change event occurred at 1.2 Ma when there was a decline in coniferous forest and a significant increase in *Artemisia*, Chenopodiaceae and Poaceae grassland. There was a continued degradation of the regional forest vegetation and its