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Quaternary Sporopollen Records and Environmental Evolution in the Dalangtan of Qaidam Basin

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Since the Quaternary, very thick lacustrine sediments have been deposited in Dalangtan of Qaidam Basin. Based on a study of high-resolution sporopollen analysis on the Dalangtan ZK06 drilling, and paleomagnetic dating data, and composite indicator of longitudinal change of sporopollen assemblages and aquatic plants and Arboreal plant / no Arboreal plant ratio (AP / NAP) and Broad-leaved trees / Coniferous trees (B / C) and Artemisia / Chenopodiaceae ratio (A / C), This paper established 10 sporopollen zones and 10 vegetation evolution stages, and discussed climate cycles since the early Pleistocene in this area, and regionally compared with the Uplift effect of Tibetan Plateau and global change. Cycle of the frequent changes appears from a small amount of hi warm deciduous broad-leaved trees and always warm steppe has been the dominant constructive species of vegetation

zones, which showed that the regional vegetation evolution was controlled by the global change, and this evolution is obviously the typical part features in the basin, which may be closely related to that the Qinghai-Tibet Plateau has gradually uplifted and reached a certain height since Pliocene, and resulted in the monsoon circulation patterns change.

Key words Sporopollen assemblage, Climatic cycles, Uplift of Tibetan Plateau, Dalangtan, Qaidam Basin

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