



迟振卿, 刘兴起, 王永, 闵隆瑞. 泥河湾盆地井儿洼剖面揭示的47~25 ka BP期间的气候环境演化[J]. 地质学报, 20

泥河湾盆地井儿洼剖面揭示的47~25 ka BP期间的气候环境演化 [点此下载全文](#)

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基金项目: 国家自然科学基金项目(面上项目, 重点项目, 重大项目)

DOI:

摘要点击次数: 159

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摘要:

利用泥河湾盆地井儿洼剖面孢粉、粒度、碳酸盐含量、介形类壳体的 $\delta^{18}O$ 及 $\delta^{13}C$ 等多种环境 proxy 47 ka BP期间的古气候环境特征进行了探讨。结果表明, 47~39 ka BP期间, 植被生长稀疏, 降水较少, 气候冷干, 入湖的粗颗粒物增多, 表明降水较多。同时介形类的大量繁殖造成碳酸盐含量的显著增高, 以及介形类δ¹³C对偏负, 说明当时湖水的水热组合适宜, 气候总体暖湿。自30 ka BP开始, 气候逐步恶化; 25 ka BP左右, 井儿干。总体而言, 39~30 ka BP期间, 泥河湾盆地的气候暖湿, 其暖湿的气候特征与青藏高原和西北地区的气候具

关键词: [泥河湾盆地](#) [井儿洼剖面](#) [古气候环境](#)

Paleoenvironmental and Paleoclimatic Changes During 47~25 ka BP as Indicated by Jinwa Basin [Download Fulltext](#)

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Fund Project:

Abstract:

Paleoenvironmental and paleoclimatic changes of the Nihewan Basin between 47 and 25 ka BP were indicated by pollen, grain size, carbonate, and $\delta^{18}O$ and $\delta^{13}C$ of ostracode shells in the Nihewan Basin. The results show that the episode between 47 and 39 ka BP saw sparse vegetation cover, which suggests cold and dry climate. During the period between 47 and 39 ka BP, abundant forest vegetation and a large amount of coarse sediment into the lake indicate that the precipitation was high at that time. Mass reproduction of ostracode caused increasing content of carbonate and relatively negative $\delta^{18}O$ of ostracode shells, suggesting that lake water was warm with low salinity. The climate was warm and wet and deteriorated since 30 ka BP. Lacustrine sedimentation terminated in 25 ka BP, which is probably attributed to the cold and dry climate. In a word, the climate was warm and wet between 39 and 30 ka BP, which is generally consistent with the climate on the Tibet Plateau and the Northwestern China.

Keywords: [Nihewan Basin](#) [Jingerwa section](#) [Paleoenvironment and paleoclimate](#)