A Big Earth Data Platform for Three Poles

**14 Ka quantitative temperature record of Xingyun Lake**

1、Description

Focusing on the "Holocene temperature problem", the Holocene earth temperature change has become a hot issue in the past climate change research. Based on the fossil sporopollen of Xingyun Lake in Yunnan Province, the newly developed method of quantitative reconstruction significance test based on random data is used to quantitatively reconstruct the summer temperature (average temperature in July) in the study area since the past 14000 years. It is found that there is a difference in the change trend between it and the summer precipitation records based on carbon, acid and oxygen isotopes of sediments in the lake, which is mainly reflected in the uncoupled change of the two in the early Holocene, The early Holocene had higher summer precipitation, but lower summer temperature. The author further puts forward that the internal feedback of the earth system dominated by clouds, aerosols and high latitude ice sheet boundary conditions in the northern hemisphere is the main reason for the uncoupling of early Holocene summer precipitation and temperature in Southwest China.

2、Keywords

Theme：Pollen,Pollen,Paleoclimate Reconstruction
Discipline：Palaeoenvironment
Places：The Tibetan Plateau and its surroundings
Time：14ka

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.01MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：24.384722 | - |
| west：102.8083 | - | east：102.755 |
| - | south：24.288889 | - |

5、Time frame:None--None

6、Reference method

References to data:

WU Duo . 14 Ka quantitative temperature record of Xingyun Lake. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2724392021

References to articles:

Wu, D., Chen, X.M., Lv, F.Y., Brenner, M., Curtis, J., Zhou, A.F., Chen, J.H., Abbott, M., Yu, J.Q., & Chen, F.H. (2018). Decoupled early Holocene summer temperature and monsoon
precipitation in southwest China. Quaternary Science Reviews, 193, 54-67.

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: WU Duo
unit: Lanzhou University
email: dwu@lzu.edu.cn