A Big Earth Data Platform for Three Poles

**Holocene pollen dataset for China**

1、Description

Past vegetation and climate investigations using the pollen assemblages archived in various sediments have been performed for more than one century, hitherto, pollen is the most suitable proxy in reconstruction for the spatial-temporal patterns of past vegetation and climate at centennial- and global-scale, and a taxonomically harmonized and temporally standardized fossil pollen dataset is essential for these reconstructions. Following pollen data collection, taxonomic homogenization, and age–depth model revision, the pollen spectra were interpolated at a 100-year resolution, and the Holocene fossil pollen dataset was established for China. The Holocene pollen dataset includes 254 pollen spectra and 217 pollen taxa. Although the density of available pollen records is higher in the forest-steppe transition-zone, available pollen records are well distributed over all main vegetation types and climatic zones of China. The temporal range of the dataset covers the Holocene (from 11.5 to 0 cal. ka BP), with abundant pollen sites available between 8 and 2 cal ka BP. The Holocene pollen dataset is relative to the literature: Cao, X., Tian, F., Herzschuh, U., Ni, J., Xu, Q., Li, W., Zhang, Y., Luo, M., Chen, F., 2022. Human activities have reduced plant diversity in eastern China over the last two millennia, Global Change Biology (accepted). More detail on processing is provided in this literature.

2、Keywords

Theme：Pollen  
Discipline：Palaeoenvironment  
Places：China  
Time：Holocene

3、Data details

1.Scale：None

2.Projection：

3.Filesize：14.38MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：53.23 | - |
| west：79.12 | - | east：134.7 |
| - | south：18.38 | - |

5、Time frame:None--None

6、Reference method

References to data:

TIAN Fang, NI Jian, CAO Xianyong, HERZSCHUH Ulrike . Holocene pollen dataset for China. A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2723792022

References to articles:

Cao, X., Tian, F., Herzschuh, U., Ni, J., Xu, Q., Li, W., Zhang, Y., Luo, M., Chen, F., 2022. Human activities have reduced plant diversity in eastern China over the last two millennia, Global Change Biology, DOI：https://doi.org/10.1111/gcb.16274.

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: TIAN Fang  
unit:   
email: tianfang@cnu.edu.cn  
  
name: NI Jian  
unit:   
email: nijian@zjnu.edu.cn  
  
name: CAO Xianyong  
unit: Institute of Tibetan Plateau Research, Chinese Academy of Sciences  
email: xcao@itpcas.ac.cn  
  
name: HERZSCHUH Ulrike   
unit: Alfred Wegner Institute, Helmholtz Centre for Polar and Marine Research  
email: Ulrike.Herzschuh@awi.de