A Big Earth Data Platform for Three Poles

**Multi-year permafrost active layer thickness post-processing ensemble products across Three Pole under different RCP scenarios for 2046-2065**

1、Description

The original thickness data of the active layer of the three pole permafrost are generated by GCM model simulation, and the original data are from http://www.cryosphere.csdb.cn/portal/metadata/5abef388-3f3f-4802-b3de-f4d233cb333b 。 This data set contains the prediction of future scenarios under different representative concentration paths (RCPs) in the next 2046-2065 years, including rcp2.6 scenario, rcp4.5 scenario and rcp8.5 scenario. The content of the original data is the thickness of the active layer in the permafrost area of the Qinghai Tibet Plateau. The data format is netcdf4, with a spatial resolution of 0.5 ° and a temporal resolution of years. Through data format conversion, spatial interpolation and other post-processing operations, the active layer thickness in permafrost area in netcdf4 format is generated, with a spatial resolution of 0.1 °, a time resolution of years, a time range of 2046-2065, and the unit is cm.

2、Keywords

Theme：active layer,Permafrost,Frozen Ground  
Discipline：Cryosphere  
Places：Tibetan Plateau  
Time：2046-2065

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：13.9MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：41.25 | - |
| west：74.25 | - | east：105.25 |
| - | south：25.25 | - |

5、Time frame:2045-12-31 16:00:00+00:00--2065-12-30 16:00:00+00:00

6、Reference method

References to data:

YE Aizhong. Multi-year permafrost active layer thickness post-processing ensemble products across Three Pole under different RCP scenarios for 2046-2065. A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2727142022

References to articles:

Yi, S., Wang, X., Qin, Y., Xiang, B., & Ding, Y. (2014). Responses of alpine grassland on Qinghai-Tibetan Plateau to climate warming and permafrost degradation: a modeling perspective. Environmental Research Letters, 9, 074014, doi:10.1088/1748-9326/9/7/074014.

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

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