A Big Earth Data Platform for Three Poles

**Data set of soil freezing depth in Yarlung Zangbo River (1901-2016)**

1、Description

This data set takes the freezing index calculated by the long-time scale (1901-2016) temperature provided by UEA-CRU and UDEL as the input data, calculates the soil freezing depth of Yarlung Zangbo River Basin through Stefan empirical formula, and interpolates the 30-year scale average soil freezing depth data set output by simulation. This data set takes the freezing index calculated by the long-time scale (1901-2016) temperature provided by UEA-CRU and UDEL as the input data, calculates the soil freezing depth of Yarlung Zangbo River Basin through Stefan empirical formula, and interpolates the 30-year scale average soil freezing depth data set output by simulation.

2、Keywords

Theme：Freezing index,Climate change,seasonally frozen ground,Permafrost,Frozen depth,Frozen Ground
Discipline：Cryosphere
Places：Yarlung Tsangpo River
Time：1901-2016

3、Data details

1.Scale：None

2.Projection：

3.Filesize：2.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：27.0 | - |
| west：81.0 | - | east：98.0 |
| - | south：32.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

LUO Dongliang , WANG Lei, LIU Lei . Data set of soil freezing depth in Yarlung Zangbo River (1901-2016). A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2720022022

References to articles:

Liu, L., Luo, D.L.,Wang, L., Huang, Y.D., & Chen, F.F. (2020). Variability of soil freeze depth in association with climate change from 1901 to 2016 in the upper Brahmaputra River Basin, Tibetan Plateau, Southwest China. Theoretical and Applied Climatology. 12(1), 6-17, DOI:10.1007/s00704-020-03291-4.

7、Supporting project information

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

8、Data resource provider

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