A Big Earth Data Platform for Three Poles

**30 m resolution lake ice type data set of Qinghai Tibet Plateau, Siberia and alaga river lake region, 2015-2019**

1、Description

Lake ice is an important parameter of Cryosphere. Its change is closely related to climate parameters such as temperature and precipitation, and can directly reflect climate change. Therefore, lake ice is an important indicator of regional climate parameter change. However, due to the poor natural environment and sparsely populated area, it is difficult to carry out large-scale field observation, The spatial resolution of 10 m and the temporal resolution of better than 30 days were used to monitor the changes of different types of lake ice, which filled in the blank of observation. The hmrf algorithm is used to classify different types of lake ice. The distribution of different types of lake ice in some lakes with an area of more than 25km2 in the three polar regions is analyzed by time series to form the lake ice type data set. The distribution of different types of lake ice in these lakes can be obtained. The data includes the sequence number of the processed lake, the year and its serial number in the time series, and vector The data set includes the algorithm used, sentinel-1 satellite data, imaging time, polar region, lake ice type and other information. Users can determine the change of different types of lake ice in time series according to the vector file.

2、Keywords

Theme：Lake ice classification,Surface Water  
Discipline：Terrestrial Surface  
Places：Alaska, Tibetan Plateau, Siberia  
Time：2015-2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：486.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：72.0 | - |
| west：137.0 | - | east：-167.0 |
| - | south：25.0 | - |

5、Time frame:2015-09-11 08:00:00+00:00--2019-06-10 08:00:00+00:00

6、Reference method

References to data:

Tian Bangsen, QIU Yubao. 30 m resolution lake ice type data set of Qinghai Tibet Plateau, Siberia and alaga river lake region, 2015-2019. A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2708062020

References to articles:

7、Supporting project information

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

8、Data resource provider

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