A Big Earth Data Platform for Three Poles

**Global annual lake ice phenological dataset (1861-2099)**

1、Description

The global annual lake ice phenological dataset includes the freeze-up date, break-up date for 74,245 lakes in the northern hemisphere. The dataset is divided into three parts: 1) current data, obtained from MODIS productions through a DLRM model (with parameters provided), covering the period of 2001 to 2020; 2) historical and 3) future simulation data, obtained from the temperature-based lake-specific models, for the periods of 1861-2005 and 2006-2099, respectively. The historical and future simulations were only performed for 30,063 lakes that meet the model conditions and are presented in the dataset.

2、Keywords

Theme：Surface Freeze-thaw Cycle/State,Lake ice,Surface Freeze-thaw Cycle/state Remote Sensing
Discipline：Cryosphere
Places：Northern Hemisphere, Global
Time：annual

3、Data details

1.Scale：None

2.Projection：

3.Filesize：181.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：90.0 | - |
| west：180.0 | - | east：180.0 |
| - | south：23.0 | - |

5、Time frame:1860-12-31 15:54:00+00:00--2098-12-31 16:00:00+00:00

6、Reference method

References to data:

WANG Xinchi. Global annual lake ice phenological dataset (1861-2099). A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2729362022

References to articles:

7、Supporting project information

8、Data resource provider

name: WANG Xinchi
unit:
email: 11930633@mail.sustech.edu.cn