A Big Earth Data Platform for Three Poles

**China lake dataset (1960s-2020)**

1、Description

The multi-decadal lake number and area changes in China during 1960s–2020 are derived from historical topographic maps and >42151 Landsat satellite images, including lakes as fine as ≥1 km^2 in size for the past 60 years (1960s, 1970s, 1990, 1995, 2000, 2005, 2010, 2015, 2020). From the 1960s to 2020, the total number of lakes (≥ 1 km ^ 2) in China increased from 2127 to 2621, and the area expanded from 68537 km ^ 2 to 82302 km ^ 2.

2、Keywords

Theme：Surface Water,Galactic System  
Discipline：Terrestrial Surface,Solar-Terrestrial Physics and Astronomy  
Places：China  
Time：1960s-2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：120.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：55.0 | - |
| west：70.0 | - | east：140.0 |
| - | south：15.0 | - |

5、Time frame:1960-02-17 16:00:00+00:00--2020-12-30 16:00:00+00:00

6、Reference method

References to data:

ZHANG Guoqing. China lake dataset (1960s-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Hydro.tpdc.2703022019

References to articles:

Zhang, G., Yao, T., Chen, W., Zheng, G., Shum, C.K., Yang, K., Piao, S., Sheng, Y., Yi,S., Li, J., O'Reilly, C.M., Qi, S., Shen, S.S.P., Zhang, H., Jia, Y. (2019). Regional differences of lake evolution across China during 1960s–2015 and its natural and anthropogenic causes. Remote Sensing of Environment. 221, 386-404.

7、Supporting project information

8、Data resource provider

name: ZHANG Guoqing  
unit:   
email: guoqing.zhang@itpcas.ac.cn