A Big Earth Data Platform for Three Poles

**Water temperature observation data at Nam Co Lake in Tibet (2011-2014)**

1、Description

This data includes the daily average water temperature data at different depths of Nam Co Lake in Tibet which is obtained through field monitoring. The data is continuously recorded by deploying the water quality multi-parameter sonde and temperature thermistors in the water with the resolution of 10 minutes and 2 hours, respectively, and the daily average water temperature is calculated based on the original observed data. The instruments and methods used are very mature and data processing is strictly controlled to ensure the authenticity and reliability of the data; the data has been used in the basic research of physical limnology such as the study of water thermal stratification, the study of lake-air heat balance, etc., and to validate the lake water temperature data derived from remote sensing and different lake models studies. The data can be used in physical limnology, hydrology, lake-air interaction, remote sensing data assimilation verification and lake model research.

2、Keywords

Theme：Temperature,Others,Surface Water,Water temperature,Snow,Hydrology,Water Quality/Water Chemistry,Lakes
Discipline：Terrestrial Surface,Remote Sensing Technology,Cryosphere
Places：Tibet, Nam Co
Time：2011-2014

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.1MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：31.0 | - |
| west：90.15 | - | east：91.1 |
| - | south：30.45 | - |

5、Time frame:2011-11-15 00:00:00+00:00--2014-07-17 00:00:00+00:00

6、Reference method

References to data:

WANG Junbo. Water temperature observation data at Nam Co Lake in Tibet (2011-2014). A Big Earth Data Platform for Three Poles, doi:10.11888/Hydro.tpdc.2703322020

References to articles:

Wang, J., Huang, L., Ju, J., Daut, G., Wang, Y., Ma, Q., Zhu, L., Haberzettl, T., Baade, J., Mäusbacher, R. (2019). Spatial and temporal variations in water temperature in a high-altitude deep dimictic mountain lake (Nam Co), central Tibetan Plateau. Journal of Great Lakes Research 45, 212-223.

Wang, J., Huang, L., Ju, J., Daut, G., Ma, Q., Zhu, L., Haberzettl, T., Baade, J., Mäusbacher, R., Hamilton, A., Graves, K., Olsthoorn, J., Laval, B.E. (2020). Seasonal stratification of a deep, high-altitude, dimictic lake: Nam Co, Tibetan Plateau. Journal of Hydrology 584, 124668.

7、Supporting project information

The modern process study in Nam Co based on monitoring
Comprehensive scientific investigations in the unsurveyed regions of Tibetan Plateau
Thermal structure characteristics of lakes on the Tibetan Plateau and their responses to climatic change: monitoring and simulations

8、Data resource provider

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