A Big Earth Data Platform for Three Poles

1、Description

2、Keywords

Theme：Maximum/Minimum temperature,Landsat,Precipitation,Radiation,Temperature,Rain gauge,Grassland,Land surface product,Carbon dioxide flux,Land cover,Terrestrial Surface Remote Sensing,Grassland  
Discipline：Atmosphere,Terrestrial Surface  
Places：Nam Co, Alpine shrubline  
Time：2005-2020, half-hourly

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：173.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：30.8 | - |
| west：90.89 | - | east：91.03 |
| - | south：30.68 | - |

5、Time frame:None--None

6、Reference method

References to data:

Felix Nieberding, MA Weiqiang, WANG Yuyang, Torsten Sachs, LEHNERT Lukas, MAURISCHAT Philipp, MA Yaoming, Cristian Wille. Half-hourly Eddy Covariance fluxes, gap-filled meteorological variables, precipitation and remotely sensed plant cover estimations from NAMORS between 2005 and 2020. A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2712742021

References to articles:

Nieberding, F., Wille, C., Fratini, G., Asmussen, M. O., Wang, Y., Ma, Y., and Sachs, T. (2020). A Long Term (2005–2019) Eddy Covariance Data Set of CO2 and H2O Fluxes from the Tibetan Alpine Steppe, Earth Syst. Sci. Data, doi:10.5194/essd-2020-63.  
  
Ma, Y.M., Kang, S.C., Zhu, L.P., Xu, B.Q., Tian, L.D., & Yao, T.D. (2008). Tibetan Observation and Research Platform- Atmosphere–land interaction over a heterogeneous landscape, Bulletin of the American Meteorological Society. 89, 1487–1492. doi:10.1175/2008BAMS2545.1.  
  
Nieberding, F., Wille, C., Ma, Y., Wang, Y., Maurischat, P., Lehnert,   
L., & Sachs, T. (2021). Winter daytime warming and shift in summer monsoon   
increase plant cover and net CO2 uptake in a central Tibetan alpine   
steppe ecosystem. Journal of Geophysical Research: Biogeosciences, 126,   
e2021JG006441, doi:10.1029/2021JG006441.  
  
Ma, Y.M., Ma, W.Q., Zhong, L., Hu, Z., Li, M., Zhu, Z., et al. (2017). Monitoring and Modeling the Tibetan Plateau’s climate system and its impact on East Asia, Scientific Reports, 7, 44574, doi:10.1038/srep44574.  
  
Lehnert, L. W., Meyer, H., Wang, Y., Miehe, G., Thies, B., Reudenbach, C., and Bendix, J. (2015). Retrieval of grassland plant coverage on the Tibetan Plateau based on a multi-scale, multi-sensor and multi-method approach, Remote Sensing of Environment, 164, 197–207, doi:10.1016/j.rse.2015.04.020.

7、Supporting project information

The Second Tibetan Plateau Scientific Expedition and Research (STEP) program  
The Strategic Priority Research Program of Chinese Academy of Sciences  
National Natural Science Foundation of China

8、Data resource provider

name: MA Yaoming  
unit: Institute of Tibetan Plateau Research, Chinese Academy of Sciences  
email: ymma@itpcas.ac.cn  
  
name: Felix Nieberding  
unit:   
email: felix.nieberding@posteo.de  
  
name: Cristian Wille  
unit:   
email: christian.wille@gfz-potsdam.de  
  
name: Torsten Sachs  
unit:   
email: torsten.sachs@gfz-potsdam.de  
  
name: MA Weiqiang  
unit:   
email: wqma@itpcas.ac.cn  
  
name: MAURISCHAT Philipp  
unit:   
email: maurischat@ifbk.uni-hannover.de  
  
name: WANG Yuyang  
unit:   
email: wangyuyang@itpcas.ac.cn  
  
name: LEHNERT Lukas  
unit:   
email: lehnert.lu@lmu.de