A Big Earth Data Platform for Three Poles

**Qilian Mountains integrated observatory network: Dataset of Heihe integrated observatory network (Leaf area index of Mixed forest station, 2019)**

1、Description

This dataset contains the LAI measurements from the Sidaoqiao in the downstream of the Heihe integrated observatory network from June 1 to September 20 in 2019. The site was located in Ejina Banner in Inner Mongolia Autonomous Region. The elevation is 870 m. There are 1 observation samples, around Mixed forest station (101.1335E, 41.9903N), which is about 30 m×30 m in size. Five sub-canopy nodes and one above-canopy node are arranged in each sample.   
The data is obtained from LAINet measurements; the four-steps are performed to obtain LAI: the raw data is light quantum (level 0); the daily LAI can be obtained using the software LAInet (level 1); further the invalid and null values are screened and using the 7 days moving averaged method to obtain the processed LAI (level 2); for the multi LAINet nodes observation, the averaged LAI of the nodes area is the final LAI (level 3).  
The released data are the post processed LAI products and stored using \*.xls format.  
For more information, please refer to Liu et al. (2018) (for sites information), Qu et al. (2014) for data processing) in the Citation section.

2、Keywords

Theme：Vegetation  
Discipline：Atmosphere,Terrestrial Surface  
Places：The lower reaches of the heihe river  
Time：2019

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：0.1MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：41.9903 | - |
| west：101.1335 | - | east：101.1335 |
| - | south：41.9903 | - |

5、Time frame:2019-06-20 16:00:00+00:00--2019-10-09 16:00:00+00:00

6、Reference method

References to data:

LIU Shaomin, XU Ziwei, Qu Yonghua. Qilian Mountains integrated observatory network: Dataset of Heihe integrated observatory network (Leaf area index of Mixed forest station, 2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2707252020

References to articles:

Liu, S.M., Li, X., Xu, Z.W., Che, T., Xiao, Q., Ma, M.G., Liu, Q.H., Jin, R., Guo, J.W., Wang, L.X., Wang, W.Z., Qi, Y., Li, H.Y., Xu, T.R., Ran, Y.H., Hu, X.L., Shi, S.J., Zhu, Z.L., Tan, J.L., Zhang, Y., & Ren, Z.G. (2018). The Heihe Integrated Observatory Network: A Basin-Scale Land Surface Processes Observatory in China. Vadose Zone Journal, 17(1), 180072.  
  
Qu, Y.H., Zhu, Y.Q., Han, W.C., Wang, J.D., & Ma, M.G. (2014). Crop leaf area index observations with a wireless sensor network and its potential for validating remote sensing products. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 7(2), 431-444.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program  
the National Natural Science Foundation of China “Key Theory and Methods for Validation of Land Surface Remote Sensing Products”

8、Data resource provider

name: XU Ziwei  
unit: Beijing Normal University  
email: xuzw@bnu.edu.cn  
  
name: Qu Yonghua  
unit:   
email: qyh@bnu.edu.cn  
  
name: LIU Shaomin  
unit: Beijing Normal University  
email: smliu@bnu.edu.cn