A Big Earth Data Platform for Three Poles

**HiWATER: WATERNET observation dataset in the upper of Heihe River Basin (2015)**

1、Description

This data set includes the observation data of 25 water net sensor network nodes in Babao River Basin in the upper reaches of Heihe River from January 2015 to December 2015. 4cm and 20cm soil moisture / temperature is the basic observation of each node; some nodes also include 10cm soil moisture / temperature, surface infrared radiation temperature, snow depth and precipitation observation. The observation frequency is 5 minutes. The data set can be used for hydrological simulation, data assimilation and remote sensing verification.   
For details, please refer to "2015 data document 20160501. Docx of water net of Babao River in the upper reaches of Heihe River"

2、Keywords

Theme：Soil,Surface radiation temperature,Precipitation,Snow depth,Snow,Earth SurFace Processes,Precipitation amount,Soil temperature,Soil moisture/Water content  
Discipline：Atmosphere,Terrestrial Surface,Cryosphere  
Places：Heihe River Basin, Babaohe Catchment  
Time：2015

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：874.0MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.3958 | - |
| west：100.0417 | - | east：101.2417 |
| - | south：37.6958 | - |

5、Time frame:2015-07-14 00:00:00+00:00--2016-07-12 00:00:00+00:00

6、Reference method

References to data:

MA Mingguo, LI Xin, KANG Jian. HiWATER: WATERNET observation dataset in the upper of Heihe River Basin (2015). A Big Earth Data Platform for Three Poles, doi:10.11888/Soil.tpdc.2708962016

References to articles:

Rui Jin, Xin Li, Baoping Yan, Xiuhong Li, Wanmin Luo, Minguo Ma, Jianwen Guo, Jian Kang, Zhongli Zhu. 2014. A Nested Eco-hydrological Wireless Sensor Network for Capturing Surface Heterogeneity in the Middle-reach of Heihe River Basin, China. IEEE Geoscience and Remote Sensing Letters, 11(11): 2015-2019, DOI:10.1109/LGRS.2014.2319085  
  
Che, T., Li, X., Liu, S., Li, H., Xu, Z., Tan, J., Zhang, Y., Ren, Z., Xiao, L., Deng, J., Jin, R., Ma, M., Wang, J., & Yang, X. (2019). Integrated hydrometeorological, snow and frozen-ground observations in the alpine region of the Heihe River Basin, China. Earth System Science Data, 11, 1483-1499

7、Supporting project information

8、Data resource provider

name: MA Mingguo  
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences  
email: mmg@lzb.ac.cn  
  
name: LI Xin  
unit:   
email: xinli@itpcas.ac.cn  
  
name: KANG Jian  
unit:   
email: jinrui@lzb.ac.cn