A Big Earth Data Platform for Three Poles

**HiWATER: Dataset of intensive runoff observations in the midstream of the Heihe River Basin of the MUlti-Scale Observation EXperiment on Evapotranspiration over heterogeneous land surfaces 2012 (MUSOEXE-12)**

1、Description

The site No. 1 EC towers were used for the intercomparison field in the Yingke irrigation district (1552.75 m, 38°59′51.71″ N, 100°24′38.76″ E). The land surface is homogeneous and dominated by vegetables in the middle reaches of the Heihe River Basin. The precipitation comparison dataset was collected between 12 June, 2012, and 22 November, 2012. The dataset includes data for five different rain gauge types, i.e., pit gauge, Chinese standard manual precipitation gauge, siphon rain gauge, tipping bucket gauge, and weighting gauge. The mountain heights for these gauges were 0.0, 0.7, 1.2, 1.5, and 1.5 m, respectively. The data were recorded every 1 hour, 1 day, 10 minutes, 10 minutes, and 10 minutes, respectively. The main objective of the data collection was to perform an intercomparison of in situ rainfall measurements. The data processing and quality control steps were as follows: 1) The water level data which collected from the hydrological station were averaged over intervals of 10 min for a total of 144 records per day. The missing data were denoted by -6999. 2) Data out the normal range records were rejected. 3) Unphysical data were rejected.  
For more information, please refer to Liu et al. (2016) (for multi-scale observation experiment or sites information), He et al. (2016) (for data processing) in the Citation section.

2、Keywords

Theme：Precipitation,Hydrology  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, the artificial oasis experimental area in the middle reaches  
Time：2012-06-12 to 2012-11-22, 2012

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：0.01MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.893333 | - |
| west：100.3575 | - | east：100.358056 |
| - | south：38.893056 | - |

5、Time frame:2012-12-21 17:01:00+00:00--2013-06-02 17:01:00+00:00

6、Reference method

References to data:

LIU Shaomin, JIANG Heng. HiWATER: Dataset of intensive runoff observations in the midstream of the Heihe River Basin of the MUlti-Scale Observation EXperiment on Evapotranspiration over heterogeneous land surfaces 2012 (MUSOEXE-12). A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.117.2013.db2017

References to articles:

He XB, et al. Comparison of a tipping-buchet and electronic weighting precipitation gauge for rainfall. Manuscript in preparation.  
  
Li, X., Cheng, G.D., Liu, S.M., Xiao, Q., Ma, M.G., Jin, R., Che, T., Liu, Q.H., Wang, W.Z., Qi, Y., Wen, J.G., Li, H.Y., Zhu, G.F., Guo, J.W., Ran, Y.H., Wang, S.G., Zhu, Z.L., Zhou, J., Hu, X.L., & Xu, Z.W. (2013). Heihe watershed allied telemetry experimental research (hiwater): scientific objectives and experimental design. Bulletin of the American Meteorological Society, 94(8), 1145-1160. doi:10.1175/BAMS-D-12-00154.1.

7、Supporting project information

National Natural Science Foundation of China

8、Data resource provider

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