A Big Earth Data Platform for Three Poles

**Evaporation data under alpine shrubs in Hulu watershed (2013)**

1、Description

This data set is the surface evapotranspiration data of Four Typical Shrub Communities in hulugou watershed. The observation period is from July 16 to August 23, 2013, which is the daily scale data. The data content includes precipitation data, evaporation and infiltration data observed by lysimeter. The data set can be used to analyze the evapotranspiration data of alpine shrub and forest.
Data quality information: data quality is high, daily evapotranspiration data observation is complete.
Data source description: a small lysimeter with an inner diameter of 25 cm and a depth of 30 cm was selected for evapotranspiration under the canopy. Two lysimeters were set up in each sample plot of evapotranspiration under the Bush, and one lysimeter was set up for each kind of Bush in the transplanting experiment. The undisturbed undisturbed soil column with the same height as the barrel shall be placed in the inner barrel during the layout, and the outer barrel shall be buried in the soil. During the embedding, the outer barrel shall be 0.5-1.0 cm higher than the ground, and the outer edge of the inner barrel shall be designed with a 2.0 cm wide rain shield to prevent the surface runoff from entering the lysimeter. Lysimeter was set up in the nearby meteorological station to measure the evapotranspiration of grassland, and a small evapotranspiration meter with an inner diameter of 25 cm and a depth of 30 cm was set up in the Picea koraiensis forest sample plot to measure the evaporation under the forest. All lysimeters shall be weighed on time at 20:00 every day (electronic balance sensing capacity is 1.0 g, which is equivalent to 0.013 mm evaporation). During observation, windproof treatment shall be done to ensure the accuracy of measurement. Data processing method: evapotranspiration is mainly calculated by mass conservation in lysimeter method. According to lysimeter design principle, evapotranspiration is mainly determined by mass difference in two consecutive days. Because it is weighed every day, it is calculated by water balance.

2、Keywords

Theme：Vegetation,Evapotranspiration,Shrubs
Discipline：Terrestrial Surface
Places：Heihe River Basin, Hulugou Basin
Time：2013

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：0.0012MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.28 | - |
| west：99.83 | - | east：99.9 |
| - | south：38.2 | - |

5、Time frame:2013-07-25 01:00:00+00:00--2013-09-01 01:00:00+00:00

6、Reference method

References to data:

SONG Yaoxuan, LIU Zhangwen. Evaporation data under alpine shrubs in Hulu watershed (2013). A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.421.2014.db2015

References to articles:

7、Supporting project information

8、Data resource provider

name: SONG Yaoxuan
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences
email: yxsdesert@sina.com

name: LIU Zhangwen
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences
email: zwliu@lzb.ac.cn