A Big Earth Data Platform for Three Poles

**Transpiration dataset of Qinhai spruce stand during the growing season in Pailougou watershed (2011-2013)**

1、Description

It is of great significance to carry out the quantitative study on the evapotranspiration of forest vegetation in Qilian Mountain, to correctly understand the hydrological function of the forest ecosystem in Qilian Mountain, to understand the water cycle process and to develop the hydrological model of the watershed, and to make a reasonable forest management plan. Forest evapotranspiration is mainly composed of soil surface evaporation, vegetation transpiration and canopy interception water evaporation. Traditional evapotranspiration research methods can be divided into two categories: actual measurement and estimation. The actual measurement methods include hydrology method, micro meteorology method and plant physiology method; the estimation method is to calculate Evapotranspiration by model, mainly including analysis model and empirical model. However, none of these methods can effectively distinguish forest transpiration from evaporation. The trunk liquid flow method can effectively calculate the transpiration of forest land by measuring the transpiration water consumption of trees. The trunk liquid flow method can effectively calculate the transpiration of forest land by measuring the transpiration water consumption of trees. The transpiration water consumption of Picea crassifolia forest was measured by thermal pulse technique, and the scale was extended to the stand scale to indicate the transpiration water consumption of Picea crassifolia forest.

2、Keywords

Theme：Water consumption,Vegetation,Evapotranspiration  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, Pailugou  
Time：2011, 2012, 2013

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：0.02MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.558 | - |
| west：100.286 | - | east：100.307 |
| - | south：38.529 | - |

5、Time frame:2011-01-21 07:30:00+00:00--2014-01-08 07:30:00+00:00

6、Reference method

References to data:

CHANG Xuexiang. Transpiration dataset of Qinhai spruce stand during the growing season in Pailougou watershed (2011-2013). A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.069.2014.db2014

References to articles:

7、Supporting project information

8、Data resource provider

name: CHANG Xuexiang  
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences  
email: chxx@lzb.ac.cn