A Big Earth Data Platform for Three Poles

**HiWATER: Dataset of Soil respiration observed by Li-8100 in the lower of Heihe River Basin from Jul to Aug , 2014**

1、Description

Soil respiration observation was carried out for the typical vegetation ground in the lower reaches of the Heihe River Basin during the aviation flight experiment in 2014. The observation started on 23 July, 2014 and finished on 2 August, 2014.  
1. Observation time  
Days from 23 July to 2 August, 2014 (25 July, 2014 excepted)  
2. Samples and observation methods  
Large areas with relatively homogeneous vegetation (greater than 100 m \* 100 m) were chosen as the observation samples. And combined the flux tower sites distribution of the lower reaches, five field samples closed to the sites were selected The observation sites sampled including Populus and Tamarix mixed forest, Populus, Tamarix group, bare ground and melon quadrats. 3-5 plots were observed for each samples. The PVC soil rings were installed one day before observation and kept about 5 cm out of the ground (the inner diameter of the PVC is 19.5 cm, the outer diameter is 20.0 cm, and the height is 12.0 cm). Minimal the effects to the surface of vegetation and withered matter when install the rings. In order to avoid fluctuations of the soil respiration value by the PVC rings, soil respiration rate was obtained when it returned to its original state (about 24h after the rings install).  
The observation time for each day was from 8:00 to 12:00 when soil respiration is relatively stable and can represent the whole day in this time. The Li-8100 Open Path soil carbon flux automatic analyzer was used (Model 8100-103) once for each plot. Cycles of observation for all plots of the five samples were completed for every morning. The soil respiration values of the samples were obtain by averaging the values of plots of the samples.  
3. Observation instrument  
Li 8100  
4. Data storage  
The observation recorded data were stored in excel and the original Soil respiration data were stored in 81x files.

2、Keywords

Theme：Soil,Soil temperature,Soil respiration  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, the natural oasis eco-hydrology experimental area in the lower reaches  
Time：2014-07-26, 2014, 2014-07-28, 2014-07-27, 2014-08-01, 2014-07-30, 2014-07-31, 2014-07-24, 2014-07-23, 2014-07-29, 2014-08-02

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：7.42MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.05 | - |
| west：101.05 | - | east：101.55 |
| - | south：41.95 | - |

5、Time frame:2018-11-24 10:48:43+00:00--2018-11-24 10:48:43+00:00

6、Reference method

References to data:

HiWATER: Dataset of Soil respiration observed by Li-8100 in the lower of Heihe River Basin from Jul to Aug , 2014. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.267.2015.db2015

References to articles:

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)

8、Data resource provider