A Big Earth Data Platform for Three Poles

**HiWATER: Dataset of photosynthesis observed by LI-6400 in the lower of Heihe River Basin on Jul, 2012**

1、Description

The dataset of photosynthesis was observed by LI-6400XT Portable Photosynthesis System in the natural oasis eco-hydrology experimental area of the Heihe River Basin. Observation items included the main vegetation type in the lower reaches of Heihe river: Populus forest, which located in the Populus forest station and the mixed forest station of Ejinaqi. Observation periods lasted from 2014-07-24 to 2014-07-31. This dataset included the raw observation data of the Populus forest observed by LI-6400 during the observation periods.
1） Objectives of observation
The photosynthetic datasets can be used in the study of plant physiological ecology characteristic and the simulation and validation for the eco-hydrological models.
2） Instrument and theory of the observation
Measuring instrument: LI-6400XT Portable Photosynthesis System.
Measuring theory: Using the infrared gas analyzer to measure the change of CO2 concentration, and then measuring the differences of CO2 concentration between the sample chamber and the referenced chamber so as to acquire the net productivity of the leaf.
3） Time and site of observation
Observation site in the Populus forest station.
Observation time: 2014-07-24
Observation site in the mixed forest station.
Observation time: From 2014-07-25 to 2014-07-31.
4） Data processing
The raw data of LI-6400 were archived in text format and can be opened by text editor or excel, the preprocessed data were in Excel format. Every time period of observation was archived in a single document, named as “date + type”.

2、Keywords

Theme：Photosynthetically active radiation,Vegetation
Discipline：Terrestrial Surface
Places：Heihe River Basin, Ejinaqi, the natural oasis eco-hydrology experimental area in the lower reaches,
Time：2014, 2014-07-24 to 2014-07-31

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：3.73MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：41.9928 | - |
| west：101.1236 | - | east：101.1236 |
| - | south：41.9928 | - |

5、Time frame:2014-08-01 08:00:00+00:00--2014-08-08 08:00:00+00:00

6、Reference method

References to data:

HiWATER: Dataset of photosynthesis observed by LI-6400 in the lower of Heihe River Basin on Jul, 2012. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.266.2015.db2015

References to articles:

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)

8、Data resource provider