A Big Earth Data Platform for Three Poles

**Vegetation environmental research data set in key areas of Asian water tower area of Qinghai Tibet Plateau (2019-2020)**

1、Description

This data set includes six data files, which are: (1) soil temperature and moisture data of alpine meadow elevation gradient\_ Dangxiong, Tibet (2019-2020). This data is the hourly observation data of temperature and water content at different soil depths (5cm and 20cm) of the alpine meadow at 4400m, 4500m, 4650m, 4800m, 4950m and 5100m above sea level in Dangxiong, Tibet during 2019-2020. (2) Meteorological environment data of Sejila Mountain Forest line\_ Linzhi, Tibet (2019), the data is the hourly meteorological environment (including wind speed, air temperature 1 m away from the surface, relative humidity 1 m away from the surface, air temperature 3 m away from the surface, relative humidity 3 m away from the surface, atmospheric pressure, total radiation, net radiation, photosynthetically active radiation, 660 nm) of the forest line of Sejila Mountain in Linzhi, Tibet in 2019 Hourly observation data of red light radiation, 730nm infrared radiation, surface temperature, atmospheric long wave radiation, surface long wave radiation, underground 5cm-20cm-60cm heat flux, underground 5cm-20cm-60cm soil temperature and humidity, rainfall and snow thickness, among which some observation data are missing due to equipment power failure in plateau area, which has been explained in the data. (3) NDVI of vegetation at major meteorological stations\_ In the Qinghai Tibet Plateau (2020), NDVI survey data and average values of vegetation near 25 meteorological stations are included. (4) Land use survey data set\_ Along the Sichuan Tibet Railway (2019), including 35 survey points along the Sichuan Tibet railway land use survey data, including survey time, location, latitude and longitude, altitude, slope aspect, main vegetation types and dominant species. (5) Leaf area index survey data\_ The leaf area index (LAI) of main vegetation types along Sichuan Tibet Railway (2019) was measured by SunScan canopy analyzer and lai-2200. (6) Survey data of soil temperature and humidity\_ Along the Sichuan Tibet Railway (2019), including 34 survey points along the Sichuan Tibet Railway: location, longitude and latitude, altitude, soil surface temperature, soil moisture at 30cm, the data were recorded as 3 repeated measurements at each survey point. The data set can be used to analyze and study the change law of vegetation environment in Qinghai Tibet Plateau.

2、Keywords

Theme：Soil,NDVI,Leaf area index,Vegetation,Land Use/Land Cover,vegetation species/Classification,Soil temperature,Vegetation investigation,Land use survey,Tree ring,Soil moisture/Water content
Discipline：Terrestrial Surface
Places：Along the Sichuan-Tibet Railway, Shergyla Mountain, Damxung
Time：2019-2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：5.97MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：30.7 | - |
| west：90.7 | - | east：103.3 |
| - | south：29.16 | - |

5、Time frame:2018-12-31 16:00:00+00:00--2020-10-28 16:00:00+00:00

6、Reference method

References to data:

ZHOU Huailin, ZHOU Guangsheng, WANG Yuhui, LUO Tianxiang, LV Xiaomin, DU Jun. Vegetation environmental research data set in key areas of Asian water tower area of Qinghai Tibet Plateau (2019-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2712392021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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