A Big Earth Data Platform for Three Poles

**Soil physical properties - soil bulk density and mechanical composition dataset of Tianlaochi Watershed in Qilian Mountains**

1、Description

A total of 137 soil samples of different vegetation types, different altitudes and different terrains were collected from June 2012 to August 2012. The soil layer of each sample point was divided into three layers of 0-10cm, 10-20cm and 20-30cm, with an altitude of 2700-3500m m. The vegetation types were divided into five types: Picea crassifolia forest, Sabina przewalskii, subalpine scrub meadow, grassland and dry grassland. At the same time of sampling, hand-held GPS is used to record the location information and environmental information of each sampling point, including longitude, latitude, altitude, slope, aspect, terrain curvature, vegetation type, soil thickness, maximum root depth, etc.
Soil bulk density: The measurement method of soil bulk density is to put the sample into an envelope and dry it in an oven at 105℃ for 24 hours, then take it out and place it for 30 minutes to weigh. The ratio of the weighing result to the volume of the ring cutter is the soil bulk density, and the unit is g/cm3.
Soil mechanical composition: hydrometer method is used to measure the soil mechanical composition, which includes the content of soil sand, silt and clay.

2、Keywords

Theme：Silt,Aspect,Soil,Clay,Topography,Slope,Soil mechanical composition,Soil physical properties,Soil bulk density,Soil sand,Altitude
Discipline：Terrestrial Surface
Places：Heihe River Basin, Tianlaochi Catchment, Sidalong Forest Region
Time：June 2012 - September 2012

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：64.0MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.33 | - |
| west：99.73 | - | east：99.98 |
| - | south：38.5 | - |

5、Time frame:2012-06-25 00:48:00+00:00--2012-09-24 00:49:00+00:00

6、Reference method

References to data:

MA Wenying, ZHAO Chuanyan. Soil physical properties - soil bulk density and mechanical composition dataset of Tianlaochi Watershed in Qilian Mountains. A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.093.2013.db2013

References to articles:

7、Supporting project information

8、Data resource provider

name: MA Wenying
unit: Lanzhou University
email: mawy12@lzu.edu.cn

name: ZHAO Chuanyan
unit: Lanzhou University
email: nanzhr@lzb.ac.cn