A Big Earth Data Platform for Three Poles

**HiWATER: Dataset of soil parameters in the midstream of the Heihe River Basin (2012)**

1、Description

This data was measured in middle stream of the Heihe River Basin in year 2012. Soil texture, porosity, bulk density, saturated water conductivity, soil organic matter were measured for each layer of the soil profile which is very close to the AMS sites. This data can be used in land surface model and ecological model.
Soil profile position: The coordinate of the profile is listed as follow. No.1 to No.17 is corresponding to the AMS number in the Matrix.
No. x y
1 100.3582 38.89322
2 100.3541 38.88697
3 100.3763 38.89057
5 100.3506 38.87577
6 100.3597 38.8712
7 100.3652 38.87677
8 100.3765 38.87255
9 100.3855 38.87241
10 100.3957 38.87569
11 100.342 38.86994
12 100.3663 38.86516
13 100.3785 38.86077
14 100.3531 38.85869
16 100.3641 38.8493
17 100.3697 38.84512
15 (superstation) 100.3721 38.85547
Gebi 100.3058 38.91801
Huazhaizi 100.3189 38.7652
Shenshawo 100.4926 38.78794
Instruments:
Soil texture: Microtrac laser particle analyzer
Porosity: Ring sampler law
Bulk density: Ring sampler law
Saturated Water Conductivity: hydrostatic head method
Soil organic matter: Total organic carbon analyzer (TOC-VCPH)
Measuring time: 2012-5-20 to 2012-7-10 (UTC+8).
Measuring content: Soil texture, porosity, bulk density, saturated water conductivity, soil organic matter.

2、Keywords

Theme：Soil,Soil bulk density,Soil texture
Discipline：Terrestrial Surface
Places：Heihe River Basin, the artificial oasis experimental area in the middle reaches, huazhaizi desert steppe station, Shenshawo desert station, Wuxing Village
Time：2012, 2012-05-20 to 2012-07-10

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：0.02MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.13533333 | - |
| west：100.3635556 | - | east：100.4578056 |
| - | south：38.05497222 | - |

5、Time frame:2012-06-01 16:00:00+00:00--2012-07-23 00:00:00+00:00

6、Reference method

References to data:

MA Mingguo. HiWATER: Dataset of soil parameters in the midstream of the Heihe River Basin (2012). A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.147.2013.db2017

References to articles:

Li, X., Liu, S.M., Xiao, Q., Ma, M.G., Jin, R., Che, T., Wang, W.Z., Hu, X.L., Xu, Z.W., Wen, J.G., Wang, L.X. (2017). A multiscale dataset for understanding complex eco-hydrological processes in a heterogeneous oasis system. Scientific Data, 4, 170083. doi:10.1038/sdata.2017.83.

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)
National Natural Science Foundation of China

8、Data resource provider

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