A Big Earth Data Platform for Three Poles

**Digital soil mapping dataset of hydrological parameters in the Heihe River Basin (2012)**

1、Description

According to the principle of soil landscape model, the key hydrological parameters spatial distribution map data products are made by digital soil mapping method. The source data of this data set comes from the soil profile data integrated by the major research plan integration project of Heihe River Basin (soil data integration and soil information product generation of Heihe River Basin, 91325301).
Scope: Heihe River Basin;
Projection: WGS · 1984 · Albers / Albers · conic · equal · area;
Spatial resolution: 90m;
Data format: TIFF;
Data content: spatial distribution of saturated water content, field water capacity, wilting water content and saturated conductivity
Prediction method: enhanced regression tree
Environmental variables: main soil forming factors
Dataset content:
Pr\_0kpsm.tif: saturated water content (unit:%)
Pr\_33kp SM. TIF: field capacity (unit:%)
X1500kp sm.tif: wilting water content (unit:%)
SHC sm.tif: saturated hydraulic conductivity (unit: KS / (mm · min-1))

2、Keywords

Theme：Soil,Soil horizons/profile,Soil moisture/Water content
Discipline：Terrestrial Surface
Places：Heihe River Basin
Time：2012

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：464.0MB

4.Data format：黑河流域数字土壤制图产品（第二版）：关键土壤水文属性分布数据集

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.687 | - |
| west：97.0667 | - | east：101.99 |
| - | south：37.6893 | - |

5、Time frame:2012-01-10 00:00:00+00:00--2013-01-09 00:00:00+00:00

6、Reference method

References to data:

ZHANG Ganlin. Digital soil mapping dataset of hydrological parameters in the Heihe River Basin (2012). A Big Earth Data Platform for Three Poles, doi:10.11888/Soil.tpdc.2705912017

References to articles:

Song, X.D., Brus, D.J., Liu, F., Li, D.C., Zhao, Y.G., Yang, J.L., Zhang, G.L. (2016). Mapping soil organic carbon content by geographically weighted regression: A case study in the Heihe River Basin, China. Geoderma, 261, 11–22.

Song, X.D., Brus, D.J., Liu, F., Li, D.C., Zhao, Y.G., Yang, J.L., Zhang, G.L. (2016). Mapping soil organic carbon content by geographically weighted regression: A case study in the Heihe River Basin, China. Geoderma, 261: 11–22.

Yang, R.M., Zhang, G.L, Liu, F., Lu, Y.Y., Yang, F., Yang, F., Yang, M., Zhao, Y.G., Li, D.C. (2016). Comparison of boosted regression tree and random forest models for mapping topsoil organic carbon concentration in an alpine ecosystem. Ecological Indicators, 60, 870–878.

7、Supporting project information

8、Data resource provider

name: ZHANG Ganlin
unit:
email: glzhang@issas.ac.cn