A Big Earth Data Platform for Three Poles

**Digital soil mapping dataset of soil organic carbon content in the Heihe river basin (2012)**

1、Description

According to the global soil map. Net standard, the 0-1m soil depth is divided into 5 layers: 0-5cm, 5-15cm, 15-30cm, 30-60cm and 60-100cm. According to the principle of soil landscape model, the spatial distribution data products of soil organic carbon content in different layers are produced by using the digital soil mapping method. The prediction method is mainly based on the soil landscape model. The basic theory of the model is the classic soil genesis theory. The model regards the soil as the product of the comprehensive effects of climate, topography, parent material, biology and time. 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, 91325301). Scope: Heihe River Basin;
Projection: WGS · 1984 · Albers;
Spatial resolution: 100M;
Data format: TIFF;
Data content: spatial distribution of soil organic carbon content
Prediction method: enhanced regression tree
Environmental variables: main soil forming factors

2、Keywords

Theme：Soil,Organic matter
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）：土壤有机碳分布数据集

4、Space scope

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

5、Time frame:2012-07-07 00:00:00+00:00--2013-01-06 00:00:00+00:00

6、Reference method

References to data:

ZHANG Ganlin. Digital soil mapping dataset of soil organic carbon content in the Heihe river basin (2012). A Big Earth Data Platform for Three Poles, doi:10.11888/Soil.tpdc.2705902017

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

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