A Big Earth Data Platform for Three Poles

**Bacteria distribution in Tibetan soils (version 1.0) (2015)**

1、Description

The data set of bacterial diversity in Tibetan soil provides the microbial distribution characteristics of the soil surface (0-2 cm) of the Tibetan Plateau. The samples were collected from July 1st to July 15th, 2015, from three types of ecosystems: meadows, grasslands and desert. The soil samples were stored in ice packs and transported to the Ecological Laboratory of the Institute of Tibetan Plateau Research in Beijing. The DNA from the soil was extracted using an MO BIO Power Soil DNA kit. The soil surface samples were stored in liquid nitrogen after collection, shipped to the Sydney laboratory, and then extracted using a Fast Prep DNA kit. The extracted DNA samples adopted 515F (5'-GTGCCAGCMGCCGCGGTAA-3') and 909r (5'-GGACTACHVGGGTWTCTAAT-3') to amplify the 16S rRNA gene fragments. The amplified fragments were sequenced by the Illumina Miseq PE250 method, and the raw data were analyzed using Mothur software. The sequences with poor sequencing quality were first removed; the sequences were sorted, and the chimeric sequences were removed. The similarities between the sequences were then calculated, the sequences with similarities above 97% were clustered into one OTU, and the OTU representative sequence was defined. The OTU representative sequence was compared with the Silva database and identified as level one when the reliability exceeded 80%. The microbial diversities in these data on the Tibetan Plateau were systematically compared, which made them significant to the study of the microbial distribution on the Tibetan Plateau.

2、Keywords

Theme：Biological Resources,Soil,Bacterial distribution
Discipline：Terrestrial Surface,Human-nature Relationship
Places：Tibetan Plateau
Time：2015

3、Data details

1.Scale：None

2.Projection：

3.Filesize：3.0MB

4.Data format：txt

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：45.0 | - |
| west：67.0 | - | east：107.0 |
| - | south：25.0 | - |

5、Time frame:2015-07-10 00:00:00+00:00--2017-07-24 00:00:00+00:00

6、Reference method

References to data:

Bacteria distribution in Tibetan soils (version 1.0) (2015). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecol.tpe.00000076.file2018

References to articles:

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider