A Big Earth Data Platform for Three Poles

**Microbial data set of Qinghai Tibet Plateau Lakes (2015)**

1、Description

This data includes bacterial 16S ribosomal RNA gene sequence data from 25 lakes in the middle of the Qinghai Tibet Plateau. The sample was collected from July to August 2015, and the surface water was sampled three times with a 2.5 liter sampler. The samples were immediately taken back to the Ecological Laboratory of the Beijing Qinghai Tibet Plateau Research Institute, and the salinity gradient of the salt lake was 0.14~118.07 g/L. This data is the result of amplification sequencing. Concentrate the lake water to 0.22 at 0.6 atm filtration pressure μ The 16S rRNA gene fragment amplification primers were 515F (5 '- GTGCCAAGCCGCGGTAA-3') and 909r (5 '- GGACTACHVGGGTWTCTAAT-3'). The Illumina MiSeq PE250 sequencer was used for end-to-end sequencing. The original data was analyzed by Mothur software. The sequence was compared with the Silva128 database and divided into operation classification units (OTUs) with 97% homology. This data can be used to analyze the microbial diversity of lakes in the Qinghai Tibet Plateau.

2、Keywords

Theme：Biological Resources,Surface Water,Diversity and distribution,Lakes  
Discipline：Terrestrial Surface,Human-nature Relationship  
Places：plateau lakes  
Time：2015

3、Data details

1.Scale：None

2.Projection：

3.Filesize：185.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：30.74 | - |
| west：79.82 | - | east：91.11 |
| - | south：33.51 | - |

5、Time frame:2015-06-30 16:00:00+00:00--2015-08-15 03:59:59+00:00

6、Reference method

References to data:

KONG Weidong. Microbial data set of Qinghai Tibet Plateau Lakes (2015). A Big Earth Data Platform for Three Poles, doi:10.1093/femsec/fiz1902022

References to articles:

Ji, M. K., Kong, W. D., Yue, L. Y., Wang, J. B., Deng, Y., & Zhu, L. P. (2019). Salinity reduces bacterial diversity, but increases network complexity in Tibetan Plateau lakes. Fems Microbiology Ecology, 95(12), fiz190.

7、Supporting project information

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

8、Data resource provider

name: KONG Weidong  
unit:   
email: wdkong@itpcas.ac.cn