A Big Earth Data Platform for Three Poles

**Photos of culturable bacterial colonies in the Amuco, Bangkog Co, Palung 4 glacier and Yuzhufeng ice core on the Tibetan Plateau (2019)**

1、Description

The dataset includes pictures of culturable bacterial colonies from Amuco (AMC), Bangkog Co (BGC), Palung 4 glacier (PL4) and Yuzhufeng (YZF) ice core on the Tibetan Plateau, which can reflect basic information such as color and transparency of colonies. A table of information is attached, including the latitude and longitude of the colony's origin, water depth and color, etc.
In this experiment, different bacteria were isolated from ice, snow, lake and other habitats on the Qinghai Tibet Plateau. These bacteria show different colors, which may be related to the bacteria adapting to the environment of strong radiation, low temperature and oligotrophic on the Qinghai Tibet Plateau, and adapting to the harsh environment through different pigment production capacity. The colonies are obtained by coating the lake water plate and culturing at low temperature (4 ℃) (R2A medium, etc.) to determine that they are pollution-free and single colonies. 16S rRNA full-length sequencing will be carried out for the obtained single colony, and whether it is a new species will be determined by 97% similarity; If the sequence similarity between this strain and the most similar strain is less than 97%, a whole genome mapping will be carried out to determine the phylogenetic relationship of this strain in the corresponding genera, families and even phyla, and determine whether this strain has a new developmental status to supplement the microbial diversity of lakes on the Tibetan Plateau.

2、Keywords

Theme：Biological Resources,Bacterial distribution
Discipline：Human-nature Relationship
Places：Bangong Co, Amu Co
Time：July-August, 2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：2.16MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：35.661 | - |
| west：88.716 | - | east：96.98 |
| - | south：29.39 | - |

5、Time frame:2019-07-26 16:00:00+00:00--2019-08-16 03:59:59+00:00

6、Reference method

References to data:

LIU Yongqin. Photos of culturable bacterial colonies in the Amuco, Bangkog Co, Palung 4 glacier and Yuzhufeng ice core on the Tibetan Plateau (2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2717142021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: LIU Yongqin
unit:
email: yql@lzu.edu.cn