A Big Earth Data Platform for Three Poles

**Genetic diversity of frogs in Qinghai Plateau Region (2021)**

1、Description

In order to determine the distribution points and habitat types of plateau forest frog along the latitudinal gradient in Qinghai, in 2021, a total of 8 distribution points of plateau forest frog were collected in Minhe County of Haidong, Qinghai, Gonghe County of Hainan Tibetan Autonomous Prefecture and Maqin County of Golog Prefecture, covering an altitude of 2000-3800m. This dataset contains 1 coordinate information table and 57 habitat photos. The coordinate information table contains information such as number, recording date, time, weather, coordinate longitude and latitude, altitude sample, habitat type and photo number of representative habitat, which are stored in the form of Excel. Photos are stored in JPG format. In order to reveal the impact of climate change on the diversity of plateau forest frogs on the Qinghai Tibet Plateau in the future, the thermal safety margin of different geographical populations of plateau forest frogs was calculated through the data of thermophysiological indexes and environmental effective temperature, and the threat of climate warming of different geographical populations of plateau forest frogs was evaluated. This data set includes field activity body temperature, resting metabolic rate, ambient temperature and morphological data of four altitude populations of plateau forest frog, which supplements the selected body temperature, tolerance temperature and temperature correction data of 2000 m altitude populations. The data is stored in Excel format. In order to study the differences of genetic diversity of plateau forest frog at different altitudes, 100 samples of plateau forest frog collected from four altitudes (2000 m, 2600 m, 3200 m and 3800 m) of Qinghai Tibet Plateau were sequenced and analyzed based on the sequences of four mitochondrial genes (12S rRNA, 16S rRNA, coi and cytb), so as to provide scientific basis for the protection of this species. This data includes 12S rRNA, 16S rRNA The sequence data obtained from the sequencing of COI and cytb genes supplement the sequence data of four genes of the population at an altitude of 2000m. The data is stored in FASTA format

2、Keywords

Theme：Biological Resources,Diversity and distribution,Amphibian
Discipline：Human-nature Relationship
Places：Qinghai
Time：2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：2041.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：36.075872 | - |
| west：96.7432 | - | east：100.687004 |
| - | south：28.7812 | - |

5、Time frame:2021-07-11 16:00:00+00:00--2021-07-30 03:59:59+00:00

6、Reference method

References to data:

ZHANG Yongpu. Genetic diversity of frogs in Qinghai Plateau Region (2021). A Big Earth Data Platform for Three Poles, doi:10.11888/HumanNat.tpdc.2723362021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: ZHANG Yongpu
unit: Wenzhou University
email: zhangyp@wzu.edu.cn