A Big Earth Data Platform for Three Poles

**Fecal pollen assemblages of grazing livestock in alpine meadow of Eastern Qinghai Tibet Plateau and their environmental implications (2017)**

1、Description

In July 2017, our team carried out field vegetation quadrat survey and livestock manure sample collection in Henan and Zeku counties. Random sampling 100 m × 5 ~ 10 pieces of unweathered excrement of the same grazing livestock in 100 m area were mixed into a sample and sealed for preservation. A total of 49 livestock manure samples were collected, including 30 yak (bosgrunniens), 11 horse (Equus ferus cabellus) and 8 sheep (Ovis aries). GPS was used to locate each sampling point, and the vegetation community and main vegetation types within the sampling point were recorded. The dry weight of each sample was 2 g. before sample treatment, 1 Lycopodium spore (27637) was added to each sample ± 563 grains per tablet were used to calculate the sporopollen concentration. Remove the calcareous cement with 10% HCl, after 200 μ The larger particle size of plant residues was removed by M sieve, and the organic matter was removed by 10% KOH in water bath at 70 ℃; Then 40% HF was added to remove the silicate. Finally, 7 μ The sporopollen was enriched by nylon sieve, cleaned and preserved in glycerin. The identification of sporopollen was carried out under 400 times optical biological microscope with reference to the sporopollen morphological atlas and literature. Tilia software was used to draw the sporopollen percentage map. The principal component analysis of sporopollen data was carried out by using canoco5.0 software. This data not only provides new research ideas and means for evaluating grazing livestock feeding habits and the impact of animal husbandry activities on regional vegetation in the Qinghai Tibet Plateau, but also provides important modern process basis and reference data for carrying out pollen analysis of fecal samples preserved in archaeological sites in the Qinghai Tibet Plateau in the future, so as to reconstruct the information of ancient vegetation communities and ancient human production activities.

2、Keywords

Theme：Pollen,Paleoclimate Reconstruction  
Discipline：Palaeoenvironment  
Places：eastern part of Tibetan Plateau  
Time：2017

3、Data details

1.Scale：None

2.Projection：

3.Filesize：2.84MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：35.06 | - |
| west：101.3 | - | east：101.42 |
| - | south：34.3 | - |

5、Time frame:2016-12-31 16:00:00+00:00--2017-12-30 16:00:00+00:00

6、Reference method

References to data:

HOU Guangliang. Fecal pollen assemblages of grazing livestock in alpine meadow of Eastern Qinghai Tibet Plateau and their environmental implications (2017). A Big Earth Data Platform for Three Poles, doi:10.11888/Paleoenv.tpdc.2712652021

References to articles:

7、Supporting project information

National Natural Science Foundation of China, No.41761018  
Pan-Third Pole Environmental Change and Green Silk Road Construction  
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8、Data resource provider

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