A Big Earth Data Platform for Three Poles

**Mitochondrial genome data of population in the southeastern margin of Qinghai Tibet Plateau (2016-2019)**

1、Description

The western and northeastern Yunnan is located in the southeast of the Qinghai Tibet Plateau. Previous genetic studies have shown that there are substantial genetic imprints of late Paleolithic human in this region, and these ancient genetic imprints are likely to spread further to the Qinghai Tibet Plateau. Therefore, the genetic study of the population in this area is helpful to clarify the migration history of early human settlement in the Qinghai Tibet Plateau. In this study, we studied the genetics of Dai people in different areas of Yunnan Province. The mitochondrial DNA hypervariable regions of 264 Dai individuals were sequenced by Sanger sequencing. Based on phylogenetic analysis, we control the quality of these data to ensure that there is no sample contamination and other quality problems. According to the revised Cambridge Reference Sequence, the variants were recorded. According to the phylogenetic tree of mitochondrial DNA in the world population (PhyloTree.org), each sample was allocated into certain haplogrop. Based on the published mtDNA data of Dai people in other areas, the maternal genetic structure and formation mechanism of Dai population were systematically studied. The results showed that there was a close genetic relationship among the Dai populations in different regions, and the haplogroups (F1a, M7B and B5a) shared by these populations could be traced back to southern China, suggesting that the Dai population might have originated in southern China and migrated southward to the mainland and Southeast Asia in the Iron or Bronze age. The genetic differentiation of the Dai population in different regions is consistent with the phenomenon that their language and culture have some differences, which indicates that the Dai people and the surrounding populations in the southward migration.

2、Keywords

Theme：Grassland
Discipline：Terrestrial Surface
Places：mitochondrial DNA, western Yunnan, Dai people
Time：2016-2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.26MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：25.095720916419467 | - |
| west：97.92 | - | east：105.06 |
| - | south：21.729062694252878 | - |

5、Time frame:2016-05-11 16:00:00+00:00--2019-12-08 03:59:59+00:00

6、Reference method

References to data:

KONG Qingpeng. Mitochondrial genome data of population in the southeastern margin of Qinghai Tibet Plateau (2016-2019). A Big Earth Data Platform for Three Poles, doi:10.1038/jhg.2016.362020

References to articles:

Li, Y.C., Huang, W., Tian, J.Y., Kong, Q.P. (2016). Exploring the maternal history of the Tai people. Journal of Human Genetics, 61, 721–729.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

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