A Big Earth Data Platform for Three Poles

**Actual livestock carrying capacity estimation product in Qinghai-Tibet Plateau (2000-2019)**

1、Description

The actual carrying capacity refers to the number of livestock in a certain area of grassland in a certain period of time. The actual carrying capacity is obtained from the statistical yearbooks of the provinces (autonomous regions) and cities (prefectures) of the Qinghai Tibet Plateau and the statistical data provided by the animal husbandry management departments. In the statistical data, there are a variety of statistical dimensions, such as the number of stocks on hand, the number of stocks on hand, the ratio of stocks on hand, and the number of livestock at the end of the year, etc. Based on the multivariate linear regression between the actual livestock carrying capacity and population density, NPP and topographic relief in the statistical yearbook, the spatial model of actual livestock carrying capacity was established, and the grid data of actual livestock carrying capacity (sheep unit, mu / km2) was obtained. The time series was from 2000 to 2019, and the spatial resolution was 250 meters. Using the statistical data of Guoluo, Yushu, Changdu, Naqu, ABA, Ganzi and Gannan in the core pastoral areas of the Qinghai Tibet Plateau, the results show that the average absolute error of spatialization is 27.48 mu / km2, and the average relative error is 13.79%. This data set can analyze the temporal and spatial variation characteristics of the actual livestock carrying capacity of the Qinghai Tibet Plateau, evaluate the grassland carrying capacity characteristics of the Qinghai Tibet Plateau, and extract the overgrazing areas, which has important application value for ecological protection, monitoring and early warning of the Qinghai Tibet Plateau.

2、Keywords

Theme：Grassland ecosystem,Biomass,Terrestrial Surface Remote Sensing,Grassland
Discipline：Terrestrial Surface
Places：Qinghai Tibet Plateau
Time：2000-2019

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：9300.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：43.887225 | - |
| west：73.132818 | - | east：105.732465 |
| - | south：21.709277 | - |

5、Time frame:1999-12-31 16:00:00+00:00--2019-12-30 16:00:00+00:00

6、Reference method

References to data:

LIU Bintao. Actual livestock carrying capacity estimation product in Qinghai-Tibet Plateau (2000-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2715132021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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