A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurements synchronizing with Landsat TM in the A'rou foci experimental area on Jul. 22, 2008**

1、Description

The dataset of ground truth measurements synchronizing with Landsat TM was obtained in the A'rou foci experimental area on Jul. 22, 2008. The stellera coverage was mainly measured by photo taking.
 (1) Stellera coverage was measured by photo taking in 10 quadrates (51m×51m). Each quadrate was divided into 17×17 subsites, with each one spanning a 3×3 m2 plot. Only corner points of each subsite were chosen and 324 photos were taken for each quadrate. Photos were taken by Nikon D80 with a lens of 18-135mm, shooting straight downwards at the height of 1.5m.
 (2) quadrates investigation including GPS by GARMIN GPS 76, species by manual cognition, the plant number by manual work, the height by the measuring tape repeated 4-5 times, the coverage by manual work (compartmentalizing 0.5m×0.5m into 100 to see the percentage the stellera takes) and the biomass (samples from 0.5m×0.5m) by green weight and dry weight. Data were archived in Excel format.
 The dataset includes TM images, quadrate coverage investigation photos, GPS positions, coverage files and investigation tables.

2、Keywords

Theme：Vegetation,Biomass,Remote Sensing Technology,Vegetation cover,Visible remote sensing
Discipline：Terrestrial Surface,Remote Sensing Technology
Places：Heihe River Basin, the cold region hydrology experimental area in the upper reaches, A'rou flight zone
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：2999.2MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.078 | - |
| west：100.411 | - | east：100.55 |
| - | south：38.015 | - |

5、Time frame:2008-08-09 16:00:00+00:00--2008-08-09 16:00:00+00:00

6、Reference method

References to data:

RAN Youhua. WATER: Dataset of ground truth measurements synchronizing with Landsat TM in the A'rou foci experimental area on Jul. 22, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0013.db2013

References to articles:

钱金波, 马明国. 基于数码照片的狼毒盖度估算[J]. 地球科学进展, 2009(07): 776–783.

7、Supporting project information

The CAS (Chinese Academy of Sciences) Action Plan for West Development Project
National Program on Key Basic Research Project (973 Program

8、Data resource provider

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