A Big Earth Data Platform for Three Poles

**The mechanism of vegetation degradation in Yuanjiang dry hot valley of Yunnan Province**

1、Description

The experimental project of vegetation degradation mechanism and reconstruction in Yuanjiang dry-hot valley in Yunnan belongs to the major research program of "Environmental and Ecological Science in Western China" of the National Natural Science Foundation. The principal is researcher Cao Kunfang of Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences. The project runs from January 2004 to December 2007.  
Data collected for this project include:  
1. Excel table of multi-year average temperature and rainfall in Yuanjiang dry-hot valley (1961-2004), with attribute fields including monthly average temperature and monthly average rainfall.  
2. excel table of annual average temperature (1750-2006) in the middle of Hengduan Mountain in China based on tree ring, with attribute fields including year and reconstructed average temperature.  
3. excel table of summer temperatures (1750-2006) in the central Hengduan Mountains in southern China based on tree rings. The attribute fields include the year and the reconstructed average temperature in summer (April-September).  
4. excel table of drought index (1655-2005) in central Hengduan Mountains of China based on tree rotation, with attribute fields including year and reconstruction of drought index in spring (March-May).  
5. pdf file of growth dynamic graph of leaves and branches. it records the growth dynamic trend line and leaf dynamic trend graph of plants with s-type, f-type, intermediate-type and S+SD-type branches from March 22, 2004 to April 8, 2005.  
6.32 Phenological Summary Tables of Woody Plants (word Document: Specific Name, Number of Observed Plants/Branches, Type of Branch Extension, Leaf Phenology, Length of Current Year Branches (cm), Total Leaves on Branches, Leaf Area (cm2), Non-leaf Period (Months), Flowering Period, Fruit Ripening Period and Fruit Type)  
7. Seasonal Changes of Relative Water Content of Plant Leaves in Yuanjiang Dry-hot Valley (March 2003-February 2004) Excel Table  
8. Seasonal Changes of Photosynthesis of 6 Representative Plants in Yuanjiang Dry-hot Valley (Maximum Photosynthetic Rate, Stomatal Conductance, Water Use Efficiency, Maximum Subefficiency of photosystem II) excle Table (2003-2005)  
9. excle Table of Long-term Water Use Efficiency (Isotope) Data of Representative Plants in Yuanjiang Dry-hot Valley (Water Use Efficiency in Dry and Wet Seasons of Shrimp Flower, Red-skin Water Brocade Tree, Three-leaf Lacquer, Phyllanthus emblica, Pearl Tree, Dried Sky Fruit, Cyclobalanopsis glauca, West China Small Stone Accumulation, Geranium, Tiger thorn, Willow and Pigexcrement Bean)  
10. word Document of List of Plants in Mandan Qianshan, Yuanjiang

2、Keywords

Theme：List of plants,Vegetation,Meteorological Disaster,Drought,Physiological indexes  
Discipline：Atmosphere,Terrestrial Surface,Others  
Places：Yuanjiang River, Yunnan Province, Hengduan Mountains  
Time：

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：1.38MB

4.Data format：文档/表格

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.3 | - |
| west：97.4 | - | east：106.3 |
| - | south：21.05 | - |

5、Time frame:None--None

6、Reference method

References to data:

CAO Kunfang. The mechanism of vegetation degradation in Yuanjiang dry hot valley of Yunnan Province. A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2706112013

References to articles:

曹坤芳等,元江干热河谷气候、植被、植物物候和生理生态适应性数据,中国科学院西双版纳热带植物园,2009

7、Supporting project information

8、Data resource provider

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