A Big Earth Data Platform for Three Poles

**The MODIS remote sensing vegetation phenology at returning green stage in spring（2001-2014）**

1、Description

This dataset is based on the sixth edition of the MODIS normalized difference vegetation index product (2001-2014) jointly released by NASA EOSDIS LP DAAC and the US Geological Survey USGS EROS. The NDVI has a time resolution of 16 days and a spatial resolution of 0.05 degree. First,the NDVI data products were re-sampled from the spatial resolution of 0.05 degree to 0.5 degree, then the time series of every year was smoothed by the double-logistic method, and the smoothed curvature was calculated. The maximum curvature of spring was selected as the returning green stage of the vegetation in Spring. This data can be used to analyze the temporal and spatial characteristics of the Holarctic vegetation phenology in Spring.

2、Keywords

Theme：vegetation index,Desert,Leaf area index,Vegetation  
Discipline：Terrestrial Surface  
Places：Pan-Arctic  
Time：2001-2014年每年数据

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：4.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：90.0 | - |
| west：-180.0 | - | east：180.0 |
| - | south：30.0 | - |

5、Time frame:2001-01-09 16:00:00+00:00--2014-01-08 16:00:00+00:00

6、Reference method

References to data:

XU Xiyan, NASA EOSDIS LP DAAC. The MODIS remote sensing vegetation phenology at returning green stage in spring（2001-2014）. A Big Earth Data Platform for Three Poles, 2019

References to articles:

Xu, X.Y, Riley, W., Koven, C.D., & Jia, G.S. (2018). Observed and simulated sensitivities of spring greenup to preseason climate in northern temperate and boreal regions. Journal of Geophysical Research: Biogeosciences, 123(1), 60-78.  
  
Xu, X., W. J. Riley, C. D. Koven, G. Jia, 2018: Spring phenology and phenology-climate links inferred from two remotely sensed vegetation indices across regions and biomes. Biogeosciences Discussions, doi:10.5194/bg-2018-257.

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

name: NASA EOSDIS LP DAAC  
unit: NASA EOSDIS LP DAAC  
email: none  
  
name: XU Xiyan  
unit: Institute of Atmospheric Physics  
email: xiyan.xu@tea.ac.cn