A Big Earth Data Platform for Three Poles

**WATER: Dataset of forest structure parameter survey at the forest sampling strip around the Dayekou Guantan forest station**

1、Description

Observation time: 2008-06-05 ~ 2008-06-15.A sample strip with a length of 1Km and a width of 20m was set up to cross the super sample plot from the starting point of the super sample plot at the geantan forest station in ohnoguchi.The compass was used to determine the direction of the sample, and the azimuth was 115 degrees north by east, which was basically consistent with the flight route.20 meters ×20 meters of sample land shall be arranged every 50 meters in the sample belt, a total of 20 pieces of sample land.There is some overlap between the sample belt and the super sample land. The center of the no.1 sample land of the sample belt is located at the center of the super sample land. The observation data is shown in the measurement data set per wood of the super sample land.This data set records the observation data of sample 2 ~ 20.These data include the following three parts:  
1) tree data of sample plots: each wood of 2 ~ 20 plots was measured: chest diameter, tree height, crown width and undershoot height.Laser altimeter and ultrasonic altimeter were used to measure the height of big trees and under branches, flower rod was used to measure the height of small trees and under branches, chest diameter was used to measure the chest diameter of trees, and crown width was measured with a leather tape measure.  
2) sample location data: the sample location is roughly determined by using a tape measure and compass. The coordinates of the center point of the sample are accurately measured using the French THALES DGPS measurement system (model z-max).The observation method is to use two GPS receivers to conduct synchronous static measurement, one in the reference station and the other in the mobile station. The observation lasts 30 minutes. The data processing software provided by the system is used for post-processing difference.  
3) LAI observation data: LAI area index (LAI) of each sample plot was measured by lai-2000 and HemiView.

2、Keywords

Theme：Vegetation,Biomass,Forests  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, Dayekou watershed foci experimental areas, Forest and Hydrology Experimental Areas,   
Time：2008

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：259.3MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.533924 | - |
| west：100.250007 | - | east：100.260361 |
| - | south：38.530537 | - |

5、Time frame:2008-12-15 16:00:00+00:00--2008-12-25 16:00:00+00:00

6、Reference method

References to data:

LIU Qingwang, GUO Zhifeng, NI Wenjian, WANG Dianzhong, WANG Bengyu, ZHANG Yang, ZHANG Zhiyu, Zhihai Gao, Yang Yongtian, CAO Bin, WANG Qiang, LIANG Dashuang, ZHAO Liqiong, TIAN Xin, WANG Xinyun, FU Anmin, Bingxiang Tan. WATER: Dataset of forest structure parameter survey at the forest sampling strip around the Dayekou Guantan forest station. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0053.db2012

References to articles:

何祺胜, 陈尔学, 曹春香, 刘清旺, 庞勇. 基于LIDAR数据的森林参数反演方法研究. 地球科学进展, 2009, 24(7): 748-755.  
  
刘清旺. 机载激光雷达森林参数估测方法研究. 北京: 中国林业科学研究院, 2009.  
  
Tian, X., Li, Z.Y., van der Tol C, Su, Z., Li, X., He, Q.S., Bao, Y.F., Chen, E.X., & Li, L.H. (2011). Estimating zero-plane displacement height and aerodynamic roughness length using synthesis of LiDAR and SPOT-5 data. Remote Sensing of Environment, 115(9): 2330-2341. 10.1016/j.rse.2011.04.033.  
  
刘清旺, 李增元, 陈尔学, 庞勇, 田昕, 曹春香. 机载LIDAR点云数据估测单株木生物量. 高技术通讯, 2010, 20(7): 765–770.

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

name: Zhihai Gao  
unit: Chinese Academy of Forestry  
email:   
  
name: Bingxiang Tan  
unit: Chinese Academy of Forestry  
email:   
  
name: GUO Zhifeng  
unit: Institute of Remote Sensing Applications, Chinese Academy of Sciences  
email: zhifeng\_guo@hotmail.com  
  
name: CAO Bin  
unit:   
email:   
  
name: Yang Yongtian  
unit: Chinese Academy of Forestry  
email: forevert@sina.com  
  
name: TIAN Xin  
unit: The Research Institute of Forest Resources Information Technique,Chinese Academy of Forestry  
email:   
  
name: NI Wenjian  
unit: Beijing Normal University  
email:   
  
name: WANG Qiang  
unit: Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences  
email:   
  
name: ZHANG Zhiyu  
unit: Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences  
email:   
  
name: LIU Qingwang  
unit: Chinese Academy of Forestry  
email: liuqw@caf.ac.cn  
  
name: LIANG Dashuang  
unit:   
email:   
  
name: WANG Xinyun  
unit:   
email:   
  
name: FU Anmin  
unit:   
email:   
  
name: WANG Dianzhong  
unit:   
email:   
  
name: ZHANG Yang  
unit:   
email:   
  
name: ZHAO Liqiong  
unit:   
email:   
  
name: WANG Bengyu  
unit: The Research Institute of Forest Resources Information Technique,Chinese Academy of Forestry  
email: