



Cold and Arid Regions Science Data Center

WATER: Dataset of ground truth measurements
synchronizing with PROBA CHRIS in the Biandukou foci
experimental area on Jun. 22, 2008

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Abstract

The dataset of ground truth measurements synchronizing with PROBA CHRIS was obtained in the Biandukou foci experimental area on Jun. 22, 2008. Observation items included:

(1) 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 chlorophyll content by SPAD 502, the coverage by manual work and the biomass (samples from 0.5m×0.5m) by wet weight and dry weight. Data were archived as Excel files.

(2) LAI of maize, desert scrub and the poplar by the fisheye camera (CANON EOS40D with a lens of EF15/28), shooting straight downwards, with exceptions of higher plants, which were shot upwards. Data included original photos (.JPG) and those processed by can_eye5.0 (as Excel files). For more details, see Readme file.

(3) ground object spectrum of grassland, barley and the rape by ASD FieldSpec (350~2 500 nm) from BNU, with 20% reference board. Raw data were binary files direct from ASD (by ViewSpecPro), which were recorded daily in detail, and pre-processed data on reflectance were in .txt.

(4) BRDF of grassland, barley and the rape by ASD FieldSpec (350~2 500 nm), with 20% reference board. Raw data were binary files direct from ASD (by ViewSpecPro), which were recorded daily in detail. The processed reflectance and transmittivity were archived in .txt files.

The dataset includes processed spectrum data, soil moisture, BRDF, quadrates investigation, integrating spheres data on the rape, LAI, CHRIS data and the fisheye camera data.

Keywords

Theme: chlorophyll, biomass, the vegetation coverage, ground object spectrum, CHRIS, the quadrat investigation, SPAD - chlorophyll meter, spectrometer, the fisheye camera, soil water content, the ground based synchronous observation, LAI, BRDF,

Place: the Heihe River Basin, the cold region hydrology experimental area, Biandukou (BDK) foci experimental area,

Temporal: 2008-6-22,

Discipline:

Statrum:

ISO 19115 Category

Category: geoscientificInformation

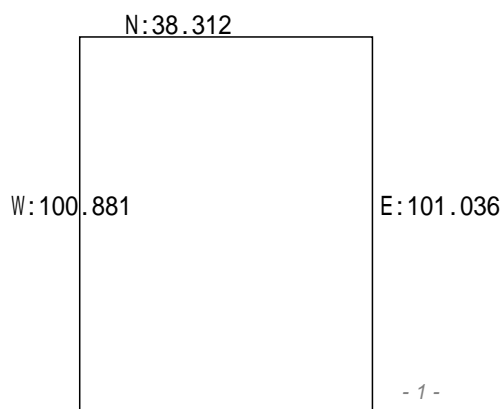
Detail

Project: +proj=longlat +datum=WGS84 +no_defs

Data Volume(MB): 158.9

Data Format: table and image

Position and Thumbnail



Temporal Range

Start: 2008-06-22

End: 2008-06-22

Citation

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Recommended Publications

DOI

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2. National Program on Key Basic Research Project (973 Program) : Theory and method for a synthetic retrieval of terrestrial ecological variables from both active and passive remote sensing approaches(No: 2007CB714400)

Limitation

1. The dataset is generated from the "Watershed Airborne Telemetry Experimental Research (WATER) ", the user must have a clear statement in the article of the original data source and adopt the reference style providing by the metadata in the References section.

Online Resources

1. WATER data report <http://westdc.westgis.ac.cn/doc/数据总体报告v1.pdf>
2. WATER Website <http://water.westgis.ac.cn>
3. Environmental and Ecological Science Data Center for West China <http://westdc.westgis.ac.cn>
4. metadata link <http://westdc.westgis.ac.cn/data/3a74e536-51cf-4e3a-9c4f-34d3410f0b6a>

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