A Big Earth Data Platform for Three Poles

**Land Surface Albedo Dataset of Typical Stations in Middle Reaches of Heihe River Basin based on UAV Remote Sensing (2020, V1)**

1、Description

Surface albedo is a critical parameter in land surface energy balance. This dataset provides the monthly land surface albedo of UAV remote sensing for typical ground stations in the middle reaches of Heihe river basin during the vegetation growth stage (June to October) in 2020 (The data of Huazhaizi station in August is not available because of technical problem). The algorithm for calculating albedo is an empirical method, which was developed based on a comprehensive forward simulation dataset based on 6S model and typical spectrums. This method can effectively transform the surface reflectance to the broadband surface albedo. The method was then applied to the surface reflectance acquired by UAV multi-spectral sensor and the broadband surface albedo with a 0.2-m spatial resolution was eventually obtained.

2、Keywords

Theme：UAV,Vegetation,Albedo,Remote Sensing Technology  
Discipline：Terrestrial Surface,Remote Sensing Technology  
Places：Zhangye wetland station, huazhaizi desert steppe station, Middle Reaches of Heihe River Basin, Daman superstation  
Time：2020

3、Data details

1.Scale：None

2.Projection：UTM

3.Filesize：4.59MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.98 | - |
| west：100.309 | - | east：100.451 |
| - | south：38.757 | - |

5、Time frame:2019-12-31 16:00:00+00:00--2020-12-31 03:59:59+00:00

6、Reference method

References to data:

ZHOU Ji, LIU Shaomin, DONG Weishen. Land Surface Albedo Dataset of Typical Stations in Middle Reaches of Heihe River Basin based on UAV Remote Sensing (2020, V1). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2714582021

References to articles:

Li, M., Zhou, J., Peng, Z., Liu, S., Göttsche, F., Zhang, X., Song, L. (2019). Component radiative temperatures over sparsely vegetated surfaces and their potential for upscaling land surface temperature. Agricultural and Forest Meteorology, 276–277. https://doi.org/10.1016/j.agrformet.2019.05.031

7、Supporting project information

8、Data resource provider

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