Inversion dataset of chlorophyll-a concentration from 2009 to 2012 in Poyang Lake, China

Data Documentation

I. Dataset/atlas content features

i. Abstract

Chlorophyll-a concentration is an important indicator of eutrophication. The methodology for the dataset processing was as follows: first, water body spectral information of Poyang Lake was measured in the field, and a spectral index was constructed based on the analysis of the spectral characteristics of the water. Then sensitive band intervals were calculated by regression analysis, based on the least squares method combined with measured chlorophyll-a concentration data. MODIS data was used to build chlorophyll-a concentration estimation models of Poyang Lake by a semi-empirical method and the accuracy of the results was verified. Finally, chlorophyll-a concentration distribution data of Poyang Lake in January, April, July, and October from 2009 to 2012 was inversed using these models.

ii. Elements (content fields)

This dataset includes Chlorophyll-a concentration distribution data of Poyang Lake in January, April, July, and October from 2009 to 2012.

Table 1 Description of data element content

Data name	Item (field)	Field name in Chinese	Field measure unit	Field code description	Remarks
Chlorophyll-a concentration	concentration	浓度			

iii. Temporal cover

2009-2012

iv. Spatial cover

Poyang Lake, China

II. Subject/industry scope of dataset/atlas

i. Subject scope

Basic Geography information

ii. Industry scope

Environmental and Textile

iii. Other classifications (optional)

III. Accuracy of dataset/atlas

i. Time frequency

quarterly

ii. Spatial reference, accuracy, and granularity

IV. Dataset/atlas storage management

i. Data quantity

The volume of the dataset is 12.2MB.

ii. Type format

This dataset was stored in hard disk with formats of TIF, Table data.

iii. Update management

Unscheduled update.

V. Quality control of the dataset/atlas

i. Production mode

The methodology for the dataset processing was as follows: first, water body spectral information of Poyang Lake was measured in the field, and a spectral index was constructed based on the analysis of the spectral characteristics of the water. Then sensitive band intervals were calculated by regression analysis, based on the least squares method combined with measured chlorophyll-a concentration data.

ii. Data sources (condition selection)

Measured in the field.

VI. Sharing and usage method of the dataset/atlas

i. Sharing methods and restrictions

Open sharing.

ii. Contact information of the sharing service (condition selection)

Online link address: http://drr.ikcest.org/info/3b60

Contact Information for Service：

Name: Service group of Disaster Risk Reduction Knowledge Service System of IKCEST

Address：11A, Datun Road, Chaoyang District, Beijing, 100101, China, Institute of Geographic Sciences and Natural Resources Research, CAS.

Zip Code：100101

E-mail: ikcest-drr@lreis.ac.cn

iii. Conditions and methods of usage

This dataset can be opened using ArcGIS.

VII. Intellectual property rights of the dataset/atlas

i. Property rights (optional)

Intellectual property of the dataset belonged to Institute of Geographic Sciences and Natural Resources Research, CAS.

ii. Reference method of the dataset/atlas

Inversion dataset of suspended solids concentration from 2000 to 2013 in Poyang Lake，China. Disaster Risk Reduction Knowledge Service of International Knowledge Centre for Engineering Sciences and Technology (IKCEST) under the Auspices of UNESCO, 2015.7.15. http://drr.ikcest.org/info/9b2c.

iii. Usage contacts of the datasets/atlas

Name: Service group of Disaster Risk Reduction Knowledge Service sub-platform of IKCEST

Address：11A, Datun Road, Chaoyang District, Beijing, 100101, China, Institute of Geographic Sciences and Natural Resources Research, CAS.

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VIII. Others (optional)

In addition to the above, other information must also be explained.

Data documentation author information			
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http://drr.ikcest.org/info/9b2c