A Big Earth Data Platform for Three Poles

**Monthly average humidity of Heihe river basin (1961-2010)**

1、Description

Based on the data information provided by the data management center of Heihe project, the daily humidity data of 21 regular meteorological observation stations in Heihe River Basin and its surrounding areas and 13 national reference stations around Heihe River were collected and calculated. The spatial stability analysis is carried out to calculate the coefficient of variation. If the coefficient of variation is greater than 100%, the geographical weighted regression is used to calculate the relationship between the station and the geographical terrain factors, and the monthly humidity distribution trend is obtained; if the coefficient of variation is less than or equal to 100%, the common least square regression is used to calculate the relationship between the station humidity value and the geographical terrain factors (latitude, longitude, elevation, slope, aspect, etc.) The residual after removing the trend was fitted and corrected by HASM (high accuracy surface modeling method). Finally, the monthly average humidity distribution of the Heihe River Basin in 1961-2010 is obtained by adding the trend surface results and the residual correction results. Time resolution: monthly average humidity for many years from 1961 to 2010. Spatial resolution: 500M.

2、Keywords

Theme：Humidity/Dryness  
Discipline：Atmosphere  
Places：Heihe River Basin  
Time：1961-2010

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：12.0MB

4.Data format：img

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.0 | - |
| west：98.0 | - | east：101.5 |
| - | south：38.0 | - |

5、Time frame:1961-02-03 08:03:00+00:00--2011-02-02 08:03:00+00:00

6、Reference method

References to data:

ZHAO Na, YUE Tianxiang. Monthly average humidity of Heihe river basin (1961-2010). A Big Earth Data Platform for Three Poles, doi:10.11888/Geogra.tpdc.2705662017

References to articles:

TianXiang Yue. 2011. Surface Modelling: High Accuracy and High Speed Methods. New York: CRC Press (Taylor & Francis group)

7、Supporting project information

8、Data resource provider

name: YUE Tianxiang  
unit: Institute of Geographic Sciences and Natural Resources Research,Chinese Academy of Sciences  
email: yue@lreis.ac.cn  
  
name: ZHAO Na  
unit:   
email: zhaon@lreis.ac.cn