

GCdataR Identified as the Trusted Repository by American Geophysical Union to Deposit the Original Data from Research Paper

Ma, J. H. Duan, Z. Q. Liu, C.*

Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing 100101, China

Recently, American Geophysical Union (AGU) issued a statement on its official website about the publication of original data related to its owned academic journal. The statement included: 1) As of August 1, 2019 AGU is adhering to the FAIR (Findable, Accessible, Interoperable, Reusable) principles that the data supporting the author's research and the visualizations in the paper must be deposited in a trusted repository; 2) by acceptance new data for the paper should be placed into community data repositories (not in supplements). 204 repositories were listed on AGU website (<https://repositoryfinder.datacite.org/>).

Up to now, 15 repositories in Chinese mainland were identified as the community data repositories of AGU, including Global Change Research Data Publishing and Repository (GCdataPR), which was sponsored by the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, and the Geographical Society of China. In the 15 repositories, 5 of them have been certified (●).

The 15 repositories in Chinese mainland were as follows:

1. Global Change Research Data Publishing and Repository (GCdataPR) ●, sponsored by the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, and the Geographical Society of China. Repository URL: <http://www.geodoi.ac.cn/WebEn/Default.aspx>.

2. World Data Center for Renewable Resources and Environment (WDC—Renewable Resources and Environment) ●, sponsored by the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences. Repository URL: <http://eng.wdc.cn/>.

3. Virtual Space Science Observatory (VSSO) ● sponsored by the National Space Science Center, Chinese Academy of Sciences. Repository URL: <http://vssso.cssdc.ac.cn>.

Received: 22-08-2019; **Accepted:** 25-08-2019; **Published:** 25-09-2019

***Corresponding Author:** Liu, C. L-3684-2016, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, lchuang@igsrr.ac.cn

Author ID: Ma, J. H. S-9830-2017; Liu, C. L-3684-2016

Article Citation: Ma, J. H., Duan, Z. Q., Liu, C. GCdataPR identified as the trusted repository by American Geophysical Union to deposit the original data from research paper [J]. *Journal of Global Change Data & Discovery*, 2019, 3(3): 305–307. DOI: 10.3974/geodp.2019.03.13.

4. WDC for geophysics, Beijing , sponsored by the Institute of Geology and Geophysics, Chinese Academy of Sciences. Repository URL: <http://www.geophys.ac.cn/>.

5. Datatang , sponsored by Datatang (Beijing) Technology Company Limited. Repository URL: <http://datatang.com/>.

6. Chinese National Arctic and Antarctic Data Center (CN-NADC), sponsored by Polar Research Institute of China, State Oceanic Administration. Repository URL: <http://www.chinare.org.cn/en/index/>.

7. Chinese Crop Germplasm Resources Information System (CGRIS), sponsored by Institute of Crop Sciences, Chinese Academy of Agricultural Sciences. Repository URL: http://www.cgris.net/cgris_english.html.

8. China Forestry Scientific Data Center (CFSDC), sponsored by National Forestry and Grassland Data Center. Repository URL: <http://www.forestdata.cn/>.

9. Peking University Open Research Data (PKU-OpenData), sponsored by Peking University. Repository URL: <http://opendata.pku.edu.cn/dataverse/pku>.

10. Fudan University Social Science Data Repository (Dataverse), sponsored by Fudan University. Repository URL: <https://dvn.fudan.edu.cn/dataverse.xhtml>.

11. Atomic & Molecular Database, sponsored by Institute of Applied Physics and Computational Mathematics. Repository URL: <http://www.camdb.ac.cn/e/>.

12. China National GeneBank DataBase, sponsored by China National GeneBank, Shenzhen. Repository URL: <https://db.cngb.org/>.

13. Genome Sequence Archive (GSA), sponsored by Beijing Institute of Genomics, Chinese Academy of Sciences. Repository URL: <http://gsa.big.ac.cn/>.

14. Dog Genome SNP Databas (DoGSD), sponsored by Beijing Institute of Genomics, Chinese Academy of Sciences. Repository URL: <http://dogsd.big.ac.cn/snp/index.jsp>.

15. China Seismic Array Data Management Center, sponsored by China Earthquake Administration. Repository URL: <http://www.chinarraydmc.cn/>.

A statement should be included in the acknowledgment section of the submitted paper indicating where readers can access the data or how you intend to provide access by acceptance (e.g., which repositories) with the submitting guideline of AGU. For data stored in a repository, the datasets for this research in these in-text data should be cited in the references and if the access to the dataset was restricted. For data published in the literature, citation for paper should be included and pointed to where the reference was. For technical reports publishing the description of a dataset and its data paper, the citation for the data paper should be included in the reference and if the access was restricted. For data not publicly available, but available to researchers with appropriate credentials, the unavailable reasons should be filled in and the in-text data citation reference was required with the access restrictions if any. For data that are restricted by commercial, industry, patent, government policies, regulations, or laws, the in-text data citation reference should be included and the access restrictions was provided that include information concerning required non-disclosure agreement, licensing, agreements (the process for how other researchers can gain access).

Sponsored by the Institute of Geographic Sciences and Natural Resources Research (IGSNRR), Chinese Academy of Sciences (CAS), and Geographical Society of China (GSC),

“Global Change Research Data Publishing & Repository” (GCdataPR, bilingual) was officially launched in June 2014 (www.geodoi.ac.cn; DOI: 10.3974). Up to September 25, 2019, the 638 datasets of 30 issues were published by the contribution of 951 authors from 430 institutes with 12 countries. The online data size is 257 GB (after compression). More than 3,169,365 visits and 45,464 computer IP users from 97 countries over the world downloaded 211,811 times openly and freely with the data size of 4,024 GB. “Global Change Research Data Publishing & Repository” provides the data infrastructure of CODATA PASTD (the Task Group on Preservation of and Open Access to S&T Data in/for/with Developing Countries) for data publishing and sharing for developing countries. GCdataPR is a Regular Member of the World Data System (WDS) of the International Scientific Committee (ISC), which the former was the International Council of Scientific Unions (ICSU), the Data Publishing Center of China Integrated Earth Observation System (China GEOSS), and the Data Provider and Broker of the International Earth Observation System of Systems (GEOSS). GCdataPR is on the searchable list of the Data Citation Index (DCI) provided by Clarivate Analytics. GCdataPR is the only one of the 72 Regular Members of WDS/ISC to simultaneously publish metadata, data products, and data papers.

Since 2016, 38 earth science journals in China were linking to GCdataPR and the common interest in publishing the related original data of their journals. GCdataPR was also the trusted repository of Polar Data Journal, which was sponsored by National Polar Research Institute of Japan. Up to now, GCdataPR has been the data repository of 61 journals from China, Japan and America.

The American Geophysical Union was established in 1919 and this year is the 100th anniversary of AGU. AGU is one of the most active academic organizations in the world and in the field of geophysics. Until now, 22 academic journals with world influence and leading role have been sponsored by AGU in the fields of atmospheric science, global environmental change, hydrology, marine science, biogeography, geology and geophysics. They are *AGU Advances*; *Earth's Future*; *Earth and Space Science*; *Geochemistry*, *Geophysics*, *Geosystems*; *GeoHealth*; *Geophysical Research Letters*; *Global Biogeochemical Cycles*; *Journal of Advances in Modeling Earth Systems (JAMES)*; *Paleoceanography and Paleoclimatology*; *Radio Science*; *Reviews of Geophysics*; *Space Weather*; *Space Weather Quarterly*; *Tectonics*; *Water Resources Research*; *Journal of Geophysical Research: Atmospheres*; *Journal of Geophysical Research: Biogeosciences*; *Journal of Geophysical Research: Earth Surface*; *Journal of Geophysical Research: Oceans*; *Journal of Geophysical Research: Planets*; *Journal of Geophysical Research: Solid Earth*; *Journal of Geophysical Research: Space Physics*. It is worth to note that the last seven journals are the series journals gradually founded based on the *Journal of Geophysical Research*, which will change with the development of science.