

## **PANGAEA® - more than 20 years serving the earth science community with data archiving and publication**

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PANGAEA - Data Publisher for Earth & Environmental Science ([www.pangaea.de](http://www.pangaea.de)) is an Open Access data-library aimed at archiving, publishing and distributing georeferenced data from earth system research. The development of the system started with the beginning of the Internet and since then offers data curation services to national and international projects, institutes and individual scientists.

Observational and analytical data files are stored with metadata in a relational database. Each data set includes a bibliographic citation and is persistently identified using a Digital Object Identifier (DOI). Data can be archived as a supplement related to an article or as an independent citable data-publication. The content is distributed through library catalogs, search engines and portals by web services. The retrieval in 350 000 data set, consisting of 9 billion data points is enabled by a search engine. A data warehouse allows the compilation of multiple studies, datasets and sources into new collections, a favourite tool for modeling and synthesis.

PANGAEA is a recommended repository for supplements in some hundred journals related to earth system research. Elsevier was the first publisher providing an automatic data-integration and visualization functionality that is shown next to the article on ScienceDirect.

Any author can submit data via a ticket system. An editor then prepares the submitted data for import including an editorial review and check for completeness of metadata and consistency. After the import and formatting the supplement, the editor sends the DOI to the author for a proofread. Communication during the publication process is fully documented and archived. The data-DOI is used by the author in the article to point to its data supplement. An established workflow for data publications is still under an international discussion – the final step in the data publishing service of PANGAEA, provided to the scientific community since 2 decades.

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