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Global hydrological dataset of daily streamflow data from the Reference Observatory of Basins for INternational hydrological climate change detection (ROBIN), 1863 - 2022

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The Reference Observatory of Basins for INternational hydrological climate change detection (ROBIN) dataset is a global hydrological dataset containing publicly available daily flow data for 2,386 gauging stations across the globe which have natural or near-natural catchments. Metadata is also provided alongside these stations for the Full ROBIN Dataset consisting of 3,060 gauging stations. Data were quality controlled by the central ROBIN team before being added to the dataset, and two levels of data quality are applied to guide users towards appropriate the data usage. Most records have data of at least 40 years with minimal missing data with data records starting in the late 19th Century for some sites through to 2022.

ROBIN represents a significant advance in global-scale, accessible streamflow data.

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Data were provided by national measuring agencies following a selection process from their wider networks. Following submission of data and metadata to the ROBIN Network, a quality control process was conducted centrally to assess the quality and suitability of the station's inclusion in the dataset. Daily streamflow records were visually screened for change points, visually anomalous conditions indicating methodology changes or infilled data gaps and obvious errors in the data. Stations were removed if they showed signs of not having a sufficiently ‘near-natural' regime, and edits were made over datasets to remove obviously erroneous data periods.

Licensing and constraints

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