

PRESS RELEASE FROM SCIENTIFIC DATA

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[Version two update of influential climate database](#)

DOI: 10.1038/sdata.2017.88

Version two of the PAGES2k temperature proxy database, a vital tool for climate reconstructions and climate modeling, is published online this week in *Scientific Data*. It represents the most transparent, complete and fully described release of the PAGES2k dataset to date, providing an important resource for climate researchers interested in how the climate has changed from 1 AD to the present.

Our knowledge of global temperatures before routine weather measurements relies on so-called “proxy” data – biological and geological sources that provide indirect information on past temperatures. Tree rings, for example, tend to grow thicker in warmer years, allowing indirect estimates of temperature change during the life of the tree. The PAGES2k database includes proxy data from a number of distinct sources including tree rings, corals, glacier ice, and marine and lake sediments.

An initial summary of the global temperature history using the full PAGES2k database shows a long-term cooling trend until the 19th century, which is then followed by a sharp warming trend. This is consistent with a large body of current climate research. They show that these trends concur with the regional temperature patterns reconstructed from a previous, more limited, version of the PAGES2k database.

The Past Global Changes project's (PAGES) new version of the database includes marine records from the Ocean2k project for the first time, and adds previously unpublished data records and extensive new metadata. Overall, the database gathers 692 records from 648 locations, with data sources covering all continents and oceans. Data were selected and vetted in a collaborative manner by members of the consortium, according to a consistent and transparent set of criteria. They are releasing the final database as ‘open data’, allowing anyone to download and use the data, which is provided in a standardized format with supporting code, ensuring the data is accessible to specialists and citizen-scientists alike.

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Please link to the scientific paper in online versions of your report (the URL will go live after the embargo ends):

<https://dx.doi.org/10.1038/sdata.2017.88>

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