Media Release

Chiefs of Staff, News Directors

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Database a window into climate change since the Roman era

A new database developed by an international group of scientists provides the most comprehensive record yet of how the global climate has changed since 1 AD.

IMAS researcher Dr Steven Phipps, who co-authored <u>the study published in the international journal</u> <u>Scientific Data</u> as a member of the PAGES2k Consortium, said the database shows a long-term cooling trend until the 19th century followed by a sharp warming trend.

- "This is the most comprehensive database of climate records spanning the past 2,000 years that has ever been generated," Dr Phipps said.
- "It will provide new insights into natural climate variability, as well as giving us a critically-important baseline against which to compare recent climate change."

Dr Phipps said current 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.

Version two of the PAGES2k temperature proxy database includes data from a number of distinct sources including tree rings, corals, glacier ice, and marine and lake sediments. Tree rings, for example, tend to grow thicker in warmer years, allowing indirect estimates of temperature change during the life of the tree.

"This is a wonderful example of scientific collabora