55 million years of climate change

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State-of-the-art climate models, as used in the assessments of the Intergovernmental Panel for Climate Change, could be giving a false sense of security in terms of upcoming abrupt change, suggests a Commentary by a University of Bristol scientist published online this week in *Nature Geoscience*.

Professor Paul Valdes of the School of Earth Sciences, discusses four examples of abrupt climate change spanning the past 55 million years that have been reconstructed from palaeoclimate data.

In two of the cases, complex climate models used in the assessments of future climate change did not adequately simulate the conditions before the onset of change. In the other two cases, the models needed an unrealistically strong push to produce a change similar to that observed in records of past climate.

Professor Valdes concludes that state-of-the-art climate models may be systematically underestimating the potential for sudden climate change.

More information: 'Built for stability' by Paul Valdes in Nature Geoscience.

Provided by University of Bristol