

## **Is Interior Antarctica on the Threshold of Major Climate Change?**

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NOAA's climate record has 2023 as the warmest year in its 174-year history. Unlike the Arctic, which has experienced significantly faster warming than the global average, Antarctic temperature change exhibits a more intricate pattern. Although Antarctica has experienced warming on average, the long-term temperature trend exhibits notable spatial variability and reveals major disparities between CMIP6 models and observations. Our Antarctic temperature reconstruction reveals long-term warming in the Antarctic Peninsula (AP) and West Antarctica (WA), with modest cooling in parts of East Antarctica (EA), particularly during austral autumn and winter. CMIP6 substantially overestimates the warming and lacks accurate spatial patterns, partly due to "hot-models" with sensitive cloud feedbacks, most evident in EA during the austral autumn. Observations show increasing high temperature extremes over the AP that parallel global climate trends, and there are strong hints that interior Antarctica is about to experience similar events. By contrast, coastal Antarctica has muted climate changes, and seems likely to stay that way for the next several decades.