



Increasing frequency and duration of Arctic winter warming events

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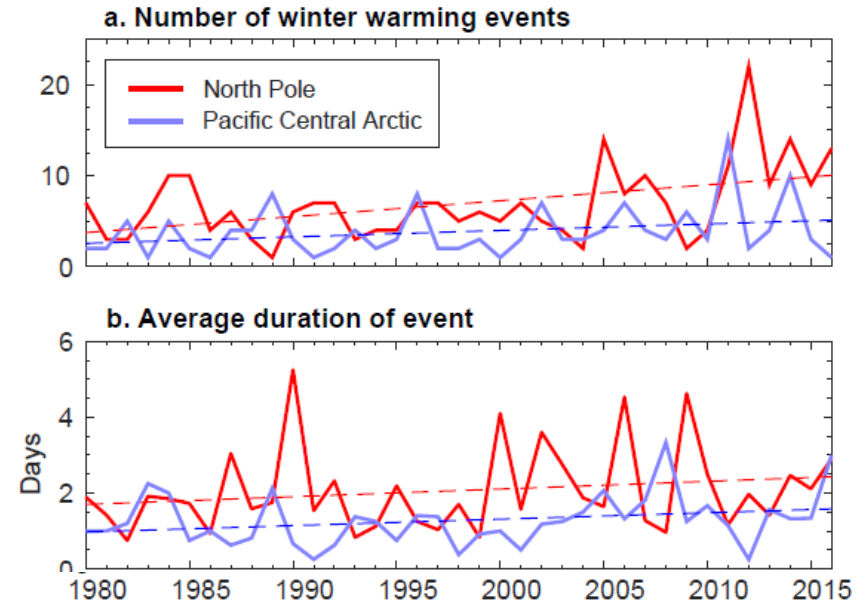
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Science Question: How is the Arctic winter atmosphere changing?

Finding: Used direct field measurements of winter temperatures, e.g. drifting met stations and ice/ocean buoys, to explore the prevalence of Arctic winter warming events, dating back to the Fram expedition in 1896. ERA-Interim accurately simulates these warming events and shows a positive trend in the number and duration of Arctic winter warming events (1980-2016), with the strongest trend over the North Pole domain.

Impact: Provided crucial long-term context to recent extreme weather events observed in the Arctic (e.g. a 2016 study by Boisvert and Petty on an extreme Arctic cyclone and its impact on sea ice).

Why It Matters: The winter Arctic atmosphere is warming rapidly, resulting in record low sea ice cover and changes in weather patterns.



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