Warmer air may cause more sea ice cover

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A new study says predicted increases in precipitation due to warmer air temperatures may actually increase sea ice volume in the Antarctic's Southern Ocean.

The findings on greenhouse effects point to asymmetry between the two poles and may be an indication that climate change processes may have varying impacts on different areas of the globe.

"Most people have heard of climate change and how rising air temperatures are melting glaciers and sea ice in the Arctic," said Dylan C. Powell, lead author of the study and a doctoral student at the University of Maryland.

"However, findings from our simulations suggest a counterintuitive phenomenon. Some of the melt in the Arctic may be balanced by increases in sea ice volume in the Antarctic."

The latest findings are published as a paper in this month's issue of the Journal of Geophysical Research (Oceans).

"We used computer-generated simulations to get this research result. I hope that in the future we'll be able to verify this result with real data through a long-term ice thickness measurement campaign," Powell said.