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Mostly Melting in Antarctica

A new study reveals that glaciers are retreating across a big piece of Antarctica.

By Elizabeth Katt-Reinders

The Antarctic Peninsula stretches for hundreds of miles from the polar continent toward the tip of South America. It has well over 200 glaciers, and many of them are shrinking.

Alison Cook is a geographic data analyst with the British Antarctic Survey in Cambridge, England. She assembled maps of the Antarctic Peninsula that are based on satellite images and aerial photographs. The maps show changes that have taken place over the past 50 years. Cook says they clearly show that almost 90 percent of the glaciers have gotten smaller. The fronts of the glaciers are retreating, and during the past five years they've started retreating more rapidly.

Cook says the average temperature on the Antarctic Peninsula has gone up two degrees Celsius -- or more than three degrees Fahrenheit -- during the past 50 years. She says the peninsula is growing warmer than the rest of Antarctica, and that's part of the reason the glaciers are getting smaller.

"I think we can say that the warming temperatures are definitely a significant reason for the shrinking glaciers. I think it's a bit more complicated than that. There are other factors that we do need to take into account."

Cook says other factors might include warmer temperatures in the ocean around Antarctica. More research might explain the details, but for now the big news is simply the documentation of the way glaciers are responding to changes in climate. Cook says the response of glaciers on the Antarctic Peninsula might be a sign of what will happen eventually across the rest of the continent.

Cook's project was part of a study by the British Antarctic Survey and the U.S. Geological Survey. It's the first to examine what changes in the climate of the Antarctic Peninsula are doing to the glaciers that reach from the mountains down to the edge of the sea.

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Additional Information:

[Antarctic Peninsula glaciers in widespread retreat](#) news release from the British Antarctic Survey (21 Apr 2005); online at:

http://www.antarctica.ac.uk/News_and_Information/Press_Releases/story.php?id=163

"Retreating Glacier Fronts on the Antarctic Peninsula over the Past Half-Century" in [Science](#), (<http://www.sciencemag.org/>) vol. 308, pp 541-545 (22 April 2005)

[Alison Cook profile](#), (<http://www.antarctica.ac.uk/staff-profiles/template.php?user=acook>)
British Antarctic Survey