North American ice sheets drove dramatic sea-level rise at the end of the last ice age

October 10th, 2025

|

Stacey Plaisance splaisance@tulane.edu

View PDF

Midnight view of the Greenland Ice Sheet near Ilulissat in July 1991. The background shows the vast ice sheet, while the foreground fjord is choked with icebergs released by one of the world's fastest-moving outlet glaciers. During the last ice age, this ice sheet was directly connected to the ice masses that covered most of Canada. (Photo by Torbjörn Törnqvist)

Melting ice sheets in North America played a far greater role in driving global sea-level rise at the end of the last ice age than scientists had thought, according to a Tulane University-led **study** published in *Nature Geoscience*.

The findings overturn decades of conventional wisdom about how Earth emerged from its last great freeze and could reshape how scientists view the risks of climate change in today’s warming world.

Between 8,000 and 9,000 years ago, retreating North American ice sheets alone caused more than 30 feet (about 10 meters) of global sea-level rise. For years, scientists assumed Antarctica was a more important contributor during this period, but the new study shows the opposite: Antarctica’s role was comparatively small, while North America’s ice masses were the dominant driver.

Read more here.