

FOR IMMEDIATE RELEASE  
January 15, 2016

Contact: Maureen Moses  
[mmoses@americangeosciences.org](mailto:mmoses@americangeosciences.org)

## EARTH: Lake Sediments Suggest Mild Volcanic Winter After Massive Toba Eruption

Alexandria, VA - Toba volcano erupted 74,000 years ago, and is thought to have been the largest eruption in the last 2.5 million years. Some scientists have thought the fallout from the eruption caused a volcanic winter so catastrophic it almost drove humans to extinction. A new high-resolution study of lake sediments from East Africa disputes that idea, however, suggesting that the early humans in the area probably experienced little or no cooling following the massive eruption.

Researchers at the University of Texas at Austin studied sediment cores drilled from Lake Malawi to study past climate change in the region. The lake's waters are stratified by temperature, and the layers typically do not mix with each other. However, significant cooling, like that predicted to have occurred from the eruption of Toba, causes the temperature in the lake to become more uniform, leading to increased mixing among the lake's layers. In that case, scientists would expect to see changes in the assemblages of microfossils that sink to the lake bottom and are recorded in the sedimentary record.

But the researchers' analysis of the cores showed no such changes at the time of the eruption. Find out what the scientists saw in the cores, and how it shapes our understanding of human history in the January issue of EARTH Magazine: <http://bit.ly/1ndObWM>.

Start off 2016 by exploring the science behind the headlines. EARTH keeps pace with global events and the newest scientific discoveries about how our planet works, including stories on where geoscientists stand on the mantle plume debate, how a surprise fossil find in a Colorado ski town helped shape the story of North American history, research showing how meteorites may have helped form Earth's earliest continents, and how an unshelled ancestor helped fill a big gap in the turtle family tree. All this and more at [www.earthmagazine.org](http://www.earthmagazine.org).

###

Keep up to date with the latest happenings in Earth, energy and environment news with EARTH Magazine online at: [www.earthmagazine.org](http://www.earthmagazine.org). Published by the American Geosciences Institute, EARTH is your source for the science behind the headlines.

###

The American Geosciences Institute is a nonprofit federation of geoscientific and professional associations that represents more than 250,000 geologists, geophysicists and other earth scientists. Founded in 1948, AGI provides information services to geoscientists, serves as a voice of shared interests in the profession, plays a major role in strengthening geoscience education, and strives to increase public awareness of the vital role the geosciences play in society's use of resources, resiliency to natural hazards, and interaction with the environment.