



Munching microbes help battle global warming

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PARIS - AFP

Scientists have uncovered microscopic helpers which help attenuate a key greenhouse gas that drives climate change.

The unsung assistants are methane-gobbling microbes that live in the deep ocean at the vents of so-called mud volcanoes, they report in Thursday's issue of *Nature*, the weekly British science journal.

A Franco-German team led by Antje Boetius of the Max Planck Institute for Marine Microbiology in Bremen, Germany found three communities of single-celled organisms around the Haakon Mosby mud volcano, south of the Norwegian Arctic archipelago of Spitsbergen.

Two of the organisms are species called archaeons -- one of which was new to science -- and the third is a bacterium which breaks down methane by using oxygen.

Mud volcanoes are hydrothermal domes that disgorge low-temperature liquids and gases that well up from pockets in the Earth's crust. They exist on the sea bed as well as on land, with an example at Yellowstone Park in the United States being one of the most famous.

The Haakon Mosby mud volcano is around one kilometer (five-eighths of a mile) across and rises gently to around 10 meters (32 feet) from the surrounding ocean floor.

The microbes are able to mop about around 40 percent of the methane emitted by this mud volcano.

Volume for volume, methane is 21 times more effective at trapping solar heat -- the greenhouse effect -- than carbon dioxide (CO₂).

Both gases have natural as well as man-made sources. The Earth has undergone prolonged spells of warming and cooling as a result of volcanic eruptions and tiny changes in the planet's orbit and axis.

Today, though, the finger of blame is being pointed squarely at fossil fuels, which release CO₂ as they are burned, for driving up temperatures to potentially dangerous levels for Earth's climate system.

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