

Bacteria that oxidizes methane found in common soil

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A team of researchers with members from Norway, Austria, Russia and Germany has found a kind of bacteria that oxidizes methane. In their paper published in *Proceedings of the National Academy of Sciences*, the

group describes their findings and suggest their work could lead to progress in combating global warming.

Scientists have reached consensus that [global warming](#) is happening, and that it is because humans continue to pump [greenhouse gases](#) into the atmosphere. The main culprit is [carbon dioxide](#), but there are other greenhouse gases making their way into the atmosphere, as well—one of them is methane. Humans produce methane naturally, via flatulence, as do animals. It also results from production of rice and other crops, and released it during oil extraction. To combat global warming, we stop emitting methane, or find a way to remove it. In this new effort, the researchers report a natural way to remove methane from the air by supporting a type of bacteria that oxidizes it.

Scientists have suspected for many years that one or more types of bacteria oxidize methane because testing has shown that methane levels drop in places where there is soil present.

The researchers report that they have isolated a type of bacteria that lives in soil and oxidizes methane: *Methylocapsa gorgona*. It is very common and is found all around the globe. It can also live on very low concentrations of the gas. On the downside, the researchers found that it is also quite fragile, and activities like farming can kill it.

The researchers suggest that *M. gorgona* could possibly be an effective methane sink if used properly. They also acknowledge that [creative ideas](#) are required before such applications could come to fruition. They go so far as to suggest the bacteria might be genetically altered to force it to consume more methane. But in the meantime, the discovery could lead to changes in [farming practices](#) that prevent the destruction of the bacteria, allowing vast stretches of land to once again remove methane from the air.

More information: Alexander T. Tveit et al. Widespread soil bacterium that oxidizes atmospheric methane, *Proceedings of the National Academy of Sciences* (2019). [DOI: 10.1073/pnas.1817812116](https://doi.org/10.1073/pnas.1817812116)

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