

# Understanding the methane-producing potential of two recently discovered groups of microbe

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## Video Byte

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# Abstract

Mangrove forests are home to many varieties of methanogens, microbes that digest surrounding carbon into methane under low-oxygen conditions. Despite their important role in the global carbon cycle and climate change, the metabolic potentials of two novel methanogens in mangroves remain poorly understood. A new study reports on the ecological importance of *Methanofastidiosa* (MF) and *Methanomassiliicoccales* (MMA), two recently discovered groups of methanogens found to dwell naturally in the Mangrove Nature Reserve in Shenzhen, China. Using metagenomics, researchers examined how MF and MMA produce methane. Results showed that the two groups of microbes both use hydrogen to produce methane from compounds found naturally in mangrove sediments, including methylsulfides, methanol, and methylamines. This marks the first time the two groups of methanogens have been studied in the wild and could help scientists understand how these microbes contribute to global methane emissions and a changing climate.