

Tatsip anersaarnera



ITSARSUARLI TASEQ INUUP
TAKUSINNAANGISAANIK
ANERSAARTORPOQ.

NUNAMIT SIKUMILLU
TUNISSUTIT TATSIMUT PISARPUT.

SIALUIT KUIILLU AQQUTIGALUGIT
PINNGORTITAMI NUNAMEERSUT TAKKUTTARPUT.

SIKUP PUJORALAI SIKUP AANNERANIT
ANORIMIILLU TAKKUTTARPUT.

TATSIP ILLERSUISUI, UUMASUAQQAT
TAPPIORANNARTUT, TUNISSUTIT
TIKILLUAQQUSARPAAT.

ILLERSUISUT TUNISSUTINIK
NERRATTARPUT...

METANET ILAI TATSIP
GAAVANIT QIMAASARPUT.

ILAALLU
NAQQANIT
PISARINEQAR-
TARPUT.

...UTERTITTARPAALLU
PINNGORTITARTIK
METANE.

TATSIP ANERSAARNISSANI
AALIANGERTARPA.

NUNA ISSITTOQ
ALLANGORIARTORPOQ TASERLU
NALIMMASSARTARIAQARLUNI.

TATSIP
OQALUTTUASSARTAA
SULI UNINGILAQ.

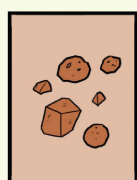
ILLIT SUUT
TAKUIGIT?

Climate feedbacks and methane cycling in Arctic lakes: from enzymes to atmosphere

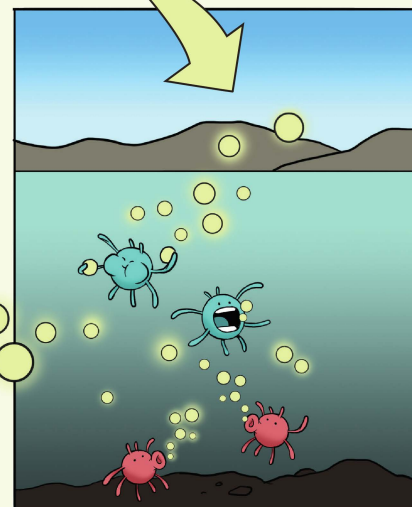
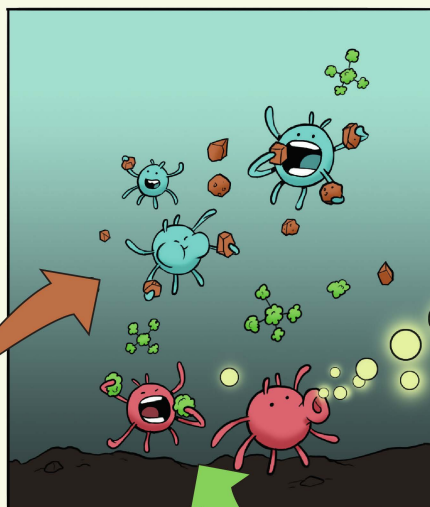


The Arctic is warming a lot faster than the rest of the world. This rapid warming could increase methane emissions, which is a much stronger greenhouse gas than carbon dioxide. Methane is made by microbes in lakes, but luckily there are other microbes that eat it. The balance between these tiny organisms determines how much methane escapes into the air. Together, they form part of the methane cycle.

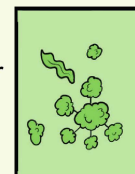
Right now, we do not fully understand how climate change will affect this balance. Warming may stimulate the methane-making microbes, worsening climate change, or it may boost the methane eaters, reducing emissions.



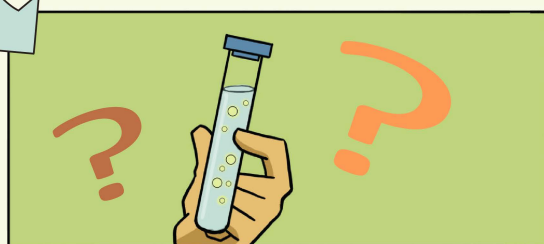
Will rare earth elements boost methane-eating microbes?



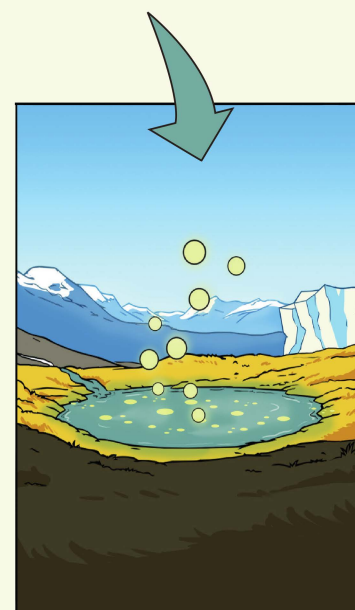
Will an increase in organic matter boost methane-making microbes?



The CLIMET team studies the methane cycle, from the microbes that make it and eat it, to the impact on the atmosphere. We do this around Kangerlussuaq in West Greenland. This landscape between the sea and ice sheet has thousands of diverse lakes, so it is perfect for studying methane in lake water!



We take samples from the water and bottom of the lake to find out which microbes live in it and how they function. We also measure the water quality, and the amount of methane coming out of the lakes. This way, we hope to find out how the methane cycle works in different lakes. We also want to see how it is influenced by the lake's surroundings and climate, both in the past and in the future.



CLIMET is an NWO ENW-XL funded consortium with researchers from the Netherlands Institute of Ecology (NIOO-KNAW), Utrecht University, and Radboud University. The production of the *Breath of the Lake* comic was done by Christian Rex, Deluxus Studio, and made possible with funding from the Royal Netherlands Academy of Arts and Sciences (KNAW) / Open Science NL.



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