

- an increase in the greenhouse gas methane emission from the ocean to the atmosphere; and
- an increase in the emission of dimethylsulfide, a gas that helps to produce clouds.

"The net impact on CO₂ capture in the Arctic is highly uncertain," Associate Professor Lannuzel said.

"Depending on the processes at play, the Arctic Ocean may either capture or emit more CO₂, it is difficult to say.

"Better understanding these complex interactions will allow more accurate representations of the influence of the Arctic changes in global climate models and improve our predictive capabilities

"A reduced sea-ice extent also has consequences for resource conservation and management as it will lead to increased human pressure on wildlife in the Arctic through shipping, oil and gas exploration, fisheries and tourism.

"Studies such as ours are therefore fundamental to the development of effective marine governance schemes for the future.

"For all these reasons, intensified long-term observations and JTJET-BDC q0.000078ughem75