

# **Ocean Acidification and the Effects on Marine Trace Gas Production**

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# Project Overview

- The project will examine the changes in trace gas concentrations in high CO<sub>2</sub> environments
- Water samples will be taken from the 2011 Bergen Mesocosm Study
- Gases to be analysed include a range of Halocarbons, DMS and DMSP
- Additional methods of Methyl Iodide trapping will be developed at UEA
- Samples will be trapped onto sorbent tubes for analysis in Bergen and later analysis at UEA.

# 2011 Mesocosm Experiment, Bergen, Norway

- Nine mesocosms covering a range of  $p\text{CO}_2$
- Core parameters measured by IFM-Geomar
  - Carbonate Chemistry
  - Temperature
  - Wind Speed
  - Nutrient Concentrations
  - Phytoplankton Community Structure
- Water samples will be collected daily for trace gas analysis
- Samples will be analysed by GC-MS
- There is a potential for collecting samples from the gas phase for analysis on GC-TOF

