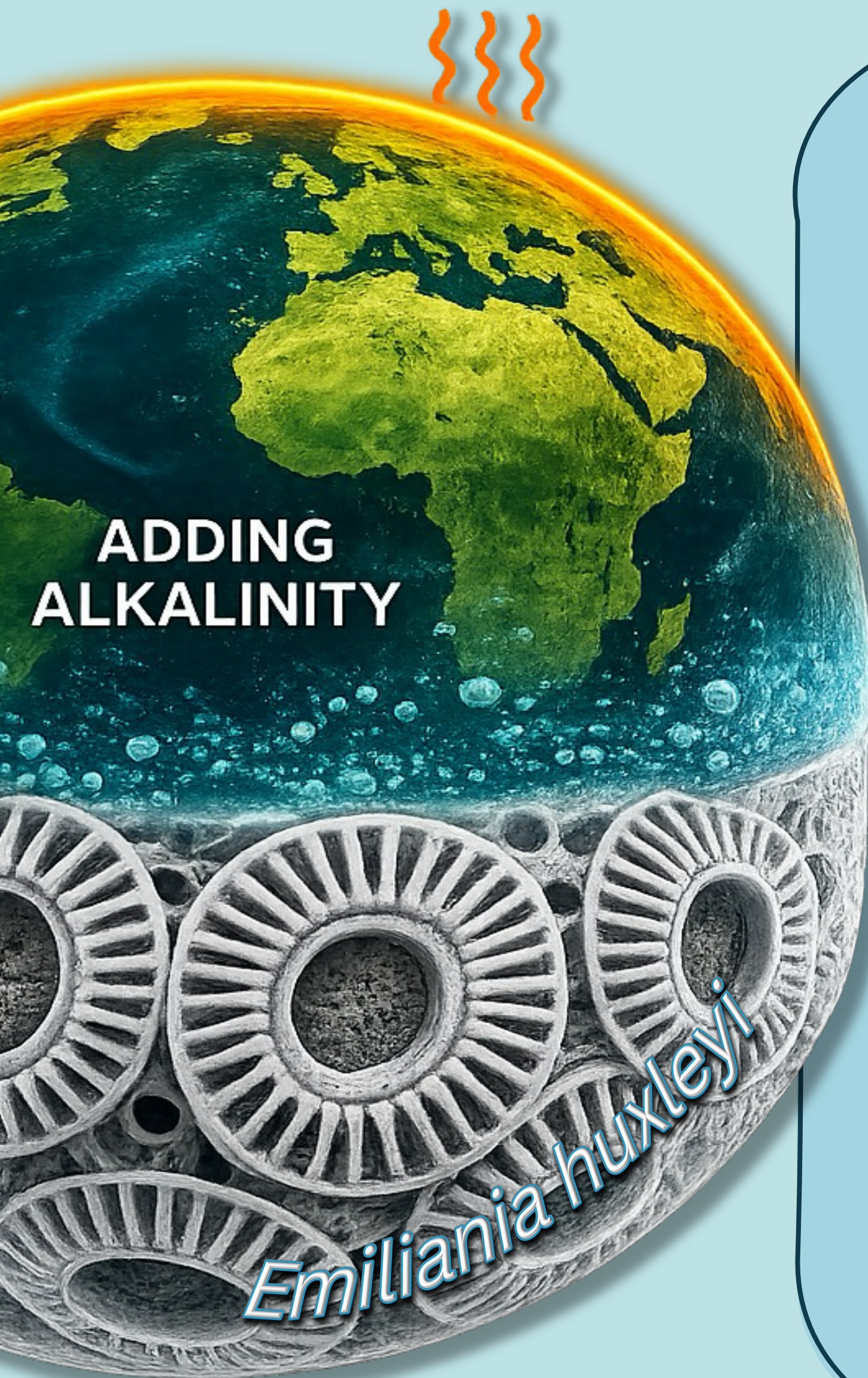


Winner or Loser: Does increasing pH help or harm phytoplankton?



Background

- Marine carbon dioxide removal (mCDR) is proposed to effectively remove carbon dioxide to mitigate global warming
- Ocean Alkalinity Enhancement (OAE) is one of the mCDR methods
- OAE changes the seawater chemistry that may impact marine organisms
- *Emiliana huxleyi*, a phytoplankton with global distribution, is a vital primary producer

Methodology

- Subject *E. huxleyi* to three desired alkalinity levels
- Measure cell volume and chlorophyll content to investigate how *E. huxleyi* responds
- Plot the exponential growth rate of *E. huxleyi* at all alkalinity levels

This will provide information on whether OAE is applicable in the ocean