

## **Effects of copper on the growth rate of the marine diatom, *Thalassiosira pseudonana***

Anthropogenic inputs of heavy metals in coastal environments have the potential to disrupt coastal phytoplankton populations through growth inhibition (Paytan et al. 2009; Arnold, Warren-Hicks 2006). One metal of concern is copper, which has been shown to reduce phytoplankton growth at high concentrations (Erickson 1972). This study tested how the growth of *Thalassiosira pseudonana* was affected under increasing copper conditions. *T. pseudonana* was grown in copper concentrations ranging from ambient to 30  $\mu\text{g Cu L}^{-1}$ . Fluorescence was used to monitor growth and compare treatments grown in natural and artificial sea water in order to observe variation between the two methods. Growth rate was lower in higher concentration copper treatments relative to the control; however, the differences were not statistically significant. Because all other conditions within the treatments were consistent, the trend observed is likely due to the presence of excess copper ions creating oxidative stress on the phytoplankton cells.

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