

## **The effect of copper chloride on glutathione (GSH) concentration, oxygen consumption, and mortality of mature blue mussels (*Mytilus edulis*)**

Blue mussels (*Mytilus edulis*) were exposed to 0 (control), 50 (medium), and 100  $\mu\text{g CuCl}_2 \text{ L}^{-1}$ . I investigated the effects of variable copper exposure on the blue mussels' oxygen consumption, GSH levels, and mortality. Oxygen consumption was recorded by an oxygen electrode, GSH concentrations were determined by an assay, and mortality was recorded visually. Oxygen consumption and GSH concentrations showed no significant difference between treatment groups. In the case of mortality there was a significant difference between all treatments. Due to small sample sizes the oxygen consumption and GSH concentrations of blue mussels (*Mytilus edulis*) proved inconclusive. The highest concentrations of copper chloride in natural setting peak at 50  $\mu\text{g CuCl}_2 \text{ L}^{-1}$  and in this study the high treatment groups were doubled showing increased concentrations increase mortality. All these factors have a potentially important influence on marine productivity, environmental quality, and human health.

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