

**Title:** The Effects of Salinity in the Concentrations of Hemolymph and Hemocyanin in Blue Crab, *Callinectes sapidus*

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Blue Crabs, *Callinectes sapidus*, are typically native to estuarine habitats. The brackish waters of these estuaries range in concentrations of salinity, thus it is hypothesized that the Blue crab exhibits the ability to osmoregulate at different salinities. To examine any changes in osmolarity in blue crab in response to varying salinities, 24 different crabs were placed in successive dilutions of artificial sea water and allowed to acclimate for periods of 24 hours. Crab hemolymph was collected at each successive dilution and analyzed using vapor pressure osmometry. Additionally, each hemolymph sample was further tested to approximate concentrations of hemocyanin (HcC) in an attempt to see if there is any correlation between the production of oxygen binding proteins and reduced ambient salinity. HcC was measured using a dilute hemolymph sample and absorbance data from a spectrophotometer. Results showed that the crabs hyperregulated their hemolymph concentrations in dilute water. Additionally, there was no significance noted in concentrations of HcC ( $p > 0.05$ ).

#### References

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