

## **The effects of the orange footed sea cucumber, *Cucumaria frondosa*, on pH and alkalinity**

Previous research with deposit feeding holothurians has demonstrated their ability to buffer pH by increasing the alkalinity of the surrounding water through the dissolution of  $\text{CaCO}_3$  and excretion of ammonia. This study determined whether a suspension feeding sea cucumber, *Cucumaria frondosa*, could produce similar results by the excretion of ammonia alone. A significant increase in acidity was observed over the course of 48 hour, closed system experiments, whereas no significant change was observed in alkalinity. It is likely that the excretion of ammonia was not substantial enough to produce significant changes in alkalinity and buffer pH to any noticeable effect, but changes to the methodology of this study could provide more insight in the future.

Advisor: Jim McKenna