

The effect of ocean acidification on the claw strength of the green crab, *Carcinus maenas*

Anthropogenic emissions of CO₂ are decreasing the pH level of the ocean and having an effect on the organisms that live in it. With the decreased pH organisms try to maintain homeostasis their acid-base levels. The green crab, *Carcinus maenas* was used for the experiment, and they were exposed to a lowered pH of 7.6±1 for 33 days, subsequently the claw strength was tested by making them crush on a board of balsa wood. The crabs' muscles were measured in length and weight. It was found that there was a significant difference in the muscle length between treatment groups with the crabs exposed to experimental pH having a longer muscle than the control group; however there was no significant difference in the pinch strength between both groups. These results show that there is an effect of pH on the crabs and it has the potential to impact by making them stronger and able to hunt more easily, affecting other organisms.

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