



Experimental set-up and methods. We used the flow-through bay water system which delivers water directly from SFE to EOS Center. The water first flows to a settlement tank and then is collected into one of two salinity reservoirs (add dimensions). Water was collected two hours after high or low tide to capture peak high and low salinity, respectfully (ie. two hours after low tide water was collected in the low salinity reservoir). The water in these reservoirs was then pumped into four header tanks (dimensions) where the carbonate chemistry was manipulated by pumping in CO₂ into two off the four headers (CO₂ canister info). CO₂ was pumped into the header tanks from a CO₂ gas cylinder attached to a variable speed peristaltic pump (model). A small submersible power head fed and diffused the CO₂ in each header tank (model). This entire set up was kept under a shed to avoid direct sunlight and heating (going to add a shaded rectangle on the diagram to show where the shed was). The water in the header tanks were then pumped to the unit tanks (10L polyethylene aquaria 30cm L x 15cm W x 30cm H). These replicates where placed in large water baths surrounded by ambient flowing bay water to maintain water temperature. There were five baths with four replicates in each one, one of each treatments. Due to plumbing and water flow limitations, we were not able to do a completely randomize the treatments within the water baths.