Excess Carbon Dioxide Compromises Shell Integrity, Reproduction, and Behavior in the Freshwater Gastropod Melanoides tuberculata

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We researched the correlation between varying levels of carbon dioxide on the freshwater Malaysian Trumpet snails. This research was inspired by a well-known ocean acidification shell experiment. Here we measured not only the shell dissolving but also the effects on behavior and reproduction in a freshwater animal. To study behavior, we placed a layer of sand as the substrate. Malaysian Trumpet snails are known for burrowing, and we can see the number of tracks created between each tank. As CO2 increased, the number of tracks significantly decreased, death rates increased, reproduction decreased, and shell integrity became compromised.

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