A Letter to the Editor

Dear Sir:

I would like to comment on the paper Uptake and Retention of Rhodamine B by Quahog Clams, Mercenaria mercenaria; J. R. Geckler and T. A. Wandstrat; Chesapeake Science Vol. 5, No. 3, pp. 134-137 (1964). I did somewhat the same experiments and, as the results are somewhat different, it may be worth reporting.

The experiments run here were essentially the same as their static tests. I used three concentrations 1.0, 0.1, and 0.01 mg/L. In 16 hours all clams at 1.0 mg/L were very pink. The color was through the entire clam as cross sections showed. These clams, when placed in a local bay, lost all the color in 48 hours or less. After the same length of time (16 hours), clams at 0.1 mg/L were slightly pink and at 0.01 mg/L the inside of the syphons were pink. This is different than what the authors found. They had clams at 0.09 and 0.01 mg/L for different lengths of time and they had no uptake.

In 40 hours the clams at 0.1 mg/L were only very slightly pink, but their syphons were pink,

while the ones at 0.01 mg/L were almost free of color. In 65 hours only the inside of the syphons of the 0.1 mg/L clams were slightly pink while the clams at 0.01 mg/L were entirely free of color. Therefore, somewhere between 16 and 48 hours the clams started to clean themselves although in the original solution.

My tanks had beach sand, small pebbles, etc. on the bottom. These materials turned pink through adsorption of the dye. In effect then the concentration was lowered. If there was an equilibrium concentration between the clams and the surrounding water, one can see why the clams lost the dye. No doubt some of the dye was broken down through the clams' metabolism and perhaps, more important, microbiologically.

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