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In Vivo Assay of Live Microalgae on *Vibrio harveyi* Co-cultured with *Scylla serrata* Larvae

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ABSTRACT

The experiment was conducted to check the presence in live microalgae of an inhibitory substance against *V. harveyi* when co-cultured with *Scylla serrata* larvae. Zoea 3 larvae were reared until megalopa with *Chaetoceros* sp., *Skeletonema* sp., or *Nannochloropsis* sp., and with or without *V. harveyi.* There were 2 control groups, one with bacteria only and the other without bacteria and algae. Results show that by Day 3, regardless of the presence or absence of microalgae, survival rates in treatments with bacteria were significantly and slightly lower with those in treatments without bacteria. However, survival rates in the control group without bacteria and microalgae, and in treatments with *Chaetoceros* sp. or *Skeletonema* sp. (with or without bacteria) were no longer significantly different between treatments by Day 12. Treatments with *Nannochloropsis* sp., with or without *V. harveyi*, obtained the significantly highest survival. By Day 12, mortality was 100% in the control with bacteria only. The results confirm the presence of an inhibitory action on the growth of the bacteria *V. harveyi* and suggest an enriching and enhancing property of microalgae, especially of *Nannochloropsis* sp.
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