

## **Use of kelp (*Laminaria sp.*) to reduce nitrogen concentration in green sea urchin (*Strongylocentrotus droebachiensis*) culture**

This study investigated the nitrate levels in experimental tanks with urchins and in tanks with urchins and kelp over a period of four weeks. The hypothesis is that the tanks with kelp will have lower levels of nitrate than the tanks with just urchins because kelp has been found to readily absorb excess nutrients, such as nitrogen. Three different systems were set up in 37.85 L aquariums – urchins, urchins and kelp, and a control with neither urchins nor kelp. Water samples were taken once a week for three weeks and were analyzed with the use of an aquarium test kit, a scanning spectrophotometer, and a predetermined nitrate standard curve. There were no conclusive results from this study because the methods used were not sensitive enough to detect the low levels of nitrate found in the natural seawater of the study site. More accurate methods would be expected to show a change in nitrate over time as proposed in the hypothesis.

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