



# Journal of Student Research on Puget Sound

The collected reports of the student scientific explorations aboard the *SV Carlyn*

Salish Sea Expeditions is a catalyst for students in their inquiry of Puget Sound through boat based-scientific exploration.

## Plankton - Near or Far?

Trafton Elementary 5th Grade  
Arlington, Washington

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**School:** Trafton Elementary School  
**Dates:** September 20-22<sup>nd</sup>, 2006  
**Grade:** 5<sup>th</sup>  
**Teacher:** Leslie Faxon

## **I. Title**

Plankton - Near or Far?

## **II. Abstract**

Our prediction was that if we test the amount of plankton far shore and near shore then we will find more plankton far shore than near shore because the plankton have more room to swim (according to the majority of the class).

Our class used the phytoplankton and zooplankton nets near shore two times and twice far shore. We got a total of 33 1/2 ml of plankton far shore and only 7 1/2 ml of plankton near shore. Our class concluded that our prediction was accurate.

## **III. Introduction**

At Trafton we decided to see if there was more plankton near shore or far shore. We also thought about checking to see if there were more plankton up at the surface or down deep. At one time we thought about looking at different mud samples.

Our prediction was that there was more plankton far shore because there was more room for the plankton to move around. Only a few people thought there would be more plankton near shore because whales eat plankton, and whales live far shore.

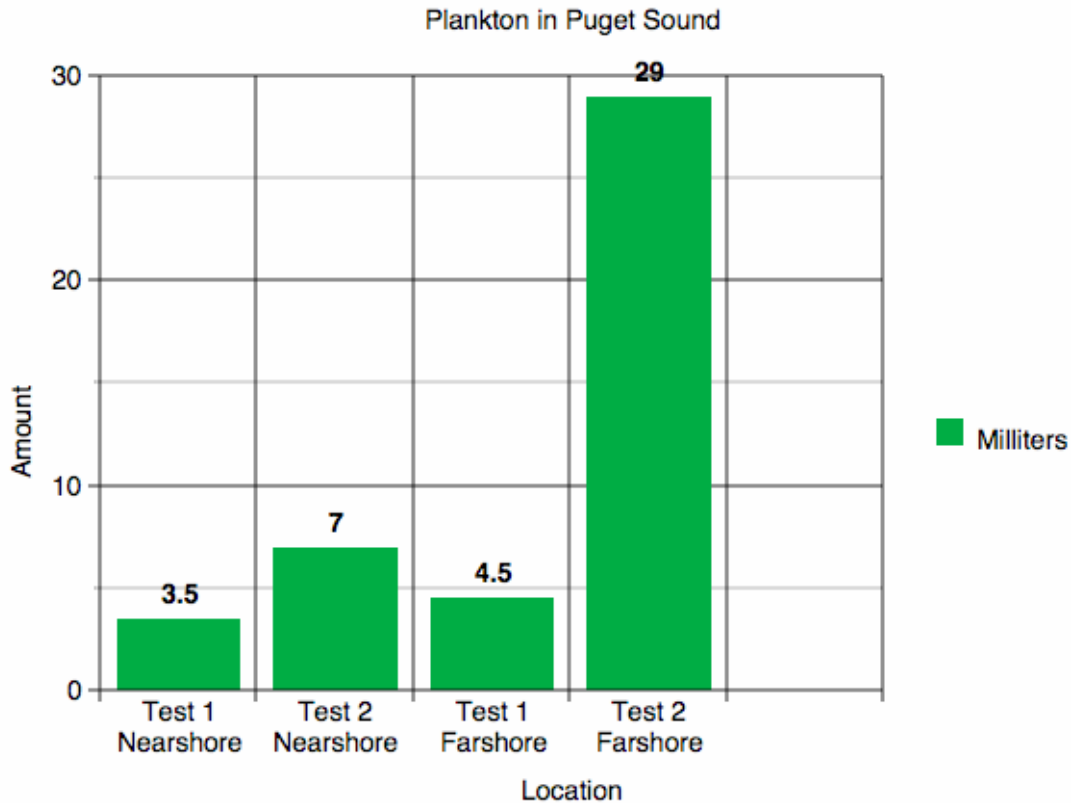
## **IV. Experimental Design**

We put the phytoplankton and zooplankton nets in the water and towed them for five minutes each. We also used the Niskin bottle, which is for taking samples of water at different depths. We used the Secchi disk, which is used for testing the water clarity and the Eckman grab, which is for taking mud samples, and many other tools.

We did sampling near shore (one quarter (1/4) mile from shore) and far shore (one (1) mile from shore) to follow our prediction. After we gathered all of our samples, we went down into the galley, and looked at phytoplankton under the microscopes. For our water samples we tested for salinity in the water using the Refractometer.

One near shore testing was done on a dock on Blake Island. That's near shore on Blake Island. We tested far shore plankton numbers near the shipping channel.

## V. Results



Elizabeth, Heidi, Aidan, Zach

Our first plankton sample was taken at Blake Island. The amount of plankton near shore was 3-1/2 ml. The second test at Blake Island for near shore was 7 ml. The first test for far shore was taken at Blake Island and there were 4 1/2 ml. The second test at Blake Island for far shore was 29 ml.

## VI. Discussion

When we were on the Salish Sea Expedition, our class sampled for phytoplankton and zooplankton. We discovered that there were more plankton far shore (one mile from shore) than close to shore (one quarter mile from shore).

We believe that this is true because there is more room to swim far shore. We think that the number of plankton affects Puget Sound because phytoplankton produce oxygen in the water and the more oxygen that there is, the more fish there are that we are able to catch and eat.

At the end of the trip, we were left with more questions. We wondered if there would be more plankton at night or day. And how do the plankton react to harmless liquids (such as milk) in their environments? We hope to someday find the answers, but for now we will have to cope with the answers we were given.

## **VII. Cruise Summary**

On our first day of the trip the weather was very wet, windy, and miserable. Some people got seasick from how windy it was. We all had a fun experience with our testing. Most of us are happy with what we found.

We would have liked to have used the ponar grab. We would study the bottom creatures, mud, and fish and dissolved oxygen at the bottom of Puget Sound. When we camped we wish we had different tent mates and more cobbler.