



**NOAA Teacher at Sea
Tiffany Risch
Onboard NOAA Ship DELAWARE II
July 28 – August 8, 2008**

NOAA Teacher at Sea: Tiffany Risch

NOAA Ship: DELAWARE II

Mission: Surf clam/Quahog survey

Geographical area: Southeast of Nantucket, MA

Date: Tuesday, August 5, 2008

Weather Data from the Bridge

- Partly to mostly cloudy, with patchy a.m. fog
- Surface winds: West-Northwest 10-15 knots
- Waves: Swells 3-5 feet
- Water temperature: 16^o Celsius
- Visibility: 7 nautical miles

Science and Technology Log

We've almost completed the entire research cruise here on the DELAWARE II. With a few more stations to cover, it is amazing how so many clams can be processed in only a week and a half at sea. Here on the DELAWARE II, scientists use digital recording devices such as scales and measuring boards to obtain accurate records. They also use computer programs that are specialized for the research being done.

When a tow is completed and the catch sorted, each surf clam or quahog goes through a series of measurements. Each bushel of clams is massed, and then each one is digitally measured. With sometimes over 2,000 clams to process, this technique is helpful because we can complete a station in as little as 30 minutes. The computer program used for this purpose asks the measurer to select the species, and then it automatically records whatever the clam measures width wise on the measuring board.

There are only about twelve stations left to go before we arrive in Woods Hole, Massachusetts. Most stations turn up a moderate number of surf clams and quahogs. Tonight, we ended up hitting an area that contained a lot of rocks. All of



Tiffany uses a measuring board to obtain quahog lengths.

them must be cleared from the dredge by the crew before the next tow can be performed. This sometimes can take as long as an hour, depending on what is collected. Scientists then sometimes question whether there could be surf clams and quahogs in this specific area, so they'll prepare to do a set-up. A set-up involves towing the region five times with intervals of 200 yards separating each tow. This allows scientists to examine what exactly could be in a specific area, and if it was just chance that allowed so many rocks to be brought up in one specific tow. Also in the future, this clam survey will be done by commercial vessels; therefore a calibration needs to be done using the current dredge versus a commercial one. Set-ups help with this process.



Something else found in a recent tow: Scallops!

Personal Log

I am very happy that I had this experience as a Teacher At Sea. In the past two weeks, I have gained a wealth of knowledge regarding surf clams and quahogs, but also what life at sea is like, and who the people are that conduct research to hopefully understand more about populations dynamics. I also have not been as tired before as I have been on this trip! Getting used to a time change by working through the night, and conducting so many tows

in a twelve hour period leaves your body fatigued. At 1:00pm when I'm finished with lunch, all I can think about is sleep.

When tows are brought to the surface, a neat variety of other things are often brought up as well. I have significantly contributed to my seashell collection by finding lots of different whelk, scallop, and snail shells, along with some sand dollars. I also kept a surf clam and a quahog shell as a reminder of my trip. Because each shell has its matching other half, they are each known as a clapper. I can't wait to share all of my interesting stories, pictures, and experiences with my students back in Coventry, Rhode Island when I return. I could only hope that people who truly have an interest in science could experience something like this one day!