



**NOAA Teacher at Sea
Laurie Degenhart
Onboard NOAA Ship DELAWARE II
July 14 – 25, 2008**

NOAA Teacher at Sea: Laurie Degenhart

NOAA Ship DELAWARE II

Geographical Area: North Atlantic Ocean, southeast of Long Island, NY

Date: Sunday, July 20, 2008

Weather Data from the Bridge

Winds at 200° at 23 knots

Sea temperature: 24.2° C

Air temp 24.6° C

Swells: 0

Atmosphere: Clear

Science and Technology Log

We are now into day 7 of our clam survey. Everyone on the ship pulls together as a team to make each tow a success. Each location for a dredge site is called a station. The NOAA crew in



Scientists and volunteers sort dredge materials.

charge of the ship must not only be at exactly the correct longitude and latitude, but the depth of the water, the speed of the tow, and the condition of the sea (waves and swells) must also be considered. There are three separate places on the ship where these decisions are made. The bridge controls the location of the ship and notes the conditions of the sea. The chief bosun controls the dredge towing. He manages the cables, depth, and length of the tow. The scientist in the lab choose the exact location of the tow and the depth. The scientists use sensors attached to the dredge to log data about the tow. The bosun reels the cable back to the ship and onto the platform. After the tow has been made the deck hands secure the dredge compartment where the catch is.

The scientific crew then measures and counts the clams. A scientist from the FDA, Stacey Etheridge, has the science crew shuck a certain number of clams. She then homogenizes them in a food processor to take back to the laboratory to test for possible toxins. The NOAA scientists collect data on the different types of clams as well as the size and weight. They are also trying to determine the age of the clam given the rings on the shell.

In addition to the scientist on the Delaware II, there is an entire NOAA crew. There are engineers, ship's officers, and fishermen. Everyone has specific assignments. The NOAA officers are at sea approximately 244 days a year. The NOAA careers website is at: <http://www.careers.noaa.gov/>

Personal Log

The scientists must have many skills in order to keep the study going. Not only do they have to know about the clams, but also how to fix problems with the computer program and its sensors, as well as the mechanical operation of the dredge equipment.

The weather at sea has been very hot and humid. The hours are long. We do approximately 10 tows on a twelve-hour shift. Think about this... each tow gathers around 4 thousand pounds of material off the ocean floor. That makes 40,000 pounds. There are 7 people on our shift. That means each of us sorts and moves around 5700 pounds in a shift.... that's as much as a small car! I guess I can have dessert with lunch today. The work is enjoyable.

Tina and I have shucked over 500 clams. We ROCK, or should I say CLAM, at shelling Quahogs.

The Captain told me that we may feel the effects of tropical storm, Cristobol. I sure hope I don't get seasick.

I learned a new skill...swabbing the deck. It is amazing the range of tasks each crewmember has to have to keep the ship running smoothly.

Our Chief Scientist, Sean Lucey, oversees all of the roles of the scientists and volunteers. It's a big job and he sets the tone for the rest of us. Everyone is positive and willing to do whatever is needed. Jakub, the Watch Chief, oversees the general operation of sorting and measuring the clams. Both Sean and Jakub are great at teaching me the ropes so that I can do my best. One

time as I was on my way to my “station” Sean remarked, “I know you’ll be ready.” I thought that was great, sometimes I get anxious about doing the exact right thing at the right time.

I am starting to think about the lesson plans that I am going to write. I want to make a simulation of a clam survey for elementary students using Oreo Cookies to gather data. Sean is going to give me data from the trip to use in my lesson plans.

One of my goals for my presentations is to go to various Vocational Classes to talk about all the facets of NOAA as a career path. I also want to develop a presentation about the roles of a scientist, showing the different aspects of the skills that they have.

Once again the meals have been great. I was told that the Stewards, John and Walter, have a reputation for providing the best food of all the NOAA ships. Sure seems right to me! We have had great meals. One night we had Sea Bass, another night we had lamb chops. There is always an abundance of vegetables and fruit. Then there is dessert... apple pie!