



**NOAA Teacher at Sea
Mary Ann Penning
Onboard NOAA Ship ALBATROSS IV
July 9 – July 20, 2007**

NOAA Teacher at Sea: Mary Ann Penning

NOAA ship ALBATROSS IV

Mission: Sea Scallop Survey

July, 14 2007

North Atlantic Ocean

Weather Data from the Bridge

Visibility: 10 nautical miles (nm)

Wind direction: 006 degrees

Wind speed: 16 knots (kts)

Sea wave height: 2-3 feet

Swell wave height: 4 feet

Seawater temperature: 22.8 degrees C

Sea level pressure: 1010.9 millibars (mb)

Air Temperature: 22.3 degrees C

Cloud cover: cloudy

Science and Technology Log

Our ship has been rocking and rolling – literally and figuratively. I think I have my sea legs now, for the most part, but I still sometimes take a zig-zag route over the deck getting from one point to another. The weather has been varied.

There have been some cloudy days where the fog can creep in unexpectedly. The sunny days are great, but that promotes very sweaty working conditions. I've seen two beautiful sunsets; I want to get in at least one sunrise before I leave the ship. As I begin to write this, our room is rolling gently from one side to another. Is this how a baby might feel rocked in their cradle?



NOAA Teacher at Sea, Mary Ann Penning, measures a fish.

After we left the dock Tuesday afternoon, the staff gradually got us into the routine of shipboard life. We had a disaster drill and tried on the famous, heavy foam-like, bright orange survival suits. They come rolled up in their own little sleeping bag. Remember Gumby? Think of him and imagine all of us on deck getting ready to go trick or treating on Halloween!



An example of a “Gumby” suit.

Not far from Martha’s Vineyard, we did two trial dredge deployments. The Chief Scientist tested the equipment and the exercise gave the volunteer scientists a chance to run through the exercises of sorting, weighing, and measuring the catch. We donned our foul weather gear – boots and slickers. We did a modified twelve hour work schedule that evening. While the night shift tried to sleep, we went on duty from 6:00 to midnight. Since there was really nothing to do, it was fun watching a movie in the lounge, but I found it hard to stay awake. I was glad to crawl into my bottom bunk and finally drift off to sleep.

With a twelve hour work schedule, I’ve been trying to get into a routine of work, writing my logs, answering e-mail, doing some light reading and, oh yes, squeezing in time for eating. I’m still adjusting and find myself tired at various points throughout the day. I’m finally delving into the Harry Potter series. I need to keep up with my fifth graders who are enthralled with the books and movies. I brought the first three books with me. Reading is a good way to spend the 20 minutes we might have between the scallop collecting duties. It just feels good to sit down after the physical labor of collecting specimens from the dredge.

Our dredge, designed by NOAA fisheries staff, drags along the surface layer of the marine habitat for scallops and other benthic organisms. Benthic means animals that live on the



Crew of the ALBATROSS prepare the dredge.

sea floor. The dredge is eight feet wide and about 20 feet long. It is made of heavy steel and metal rings that are linked together to create the bag behind the dredge frame. There is an inside liner of netting which allows us to catch the smaller scallops, too. Our Chief

scientist , Victor Nordahl, is responsible for the standardization of the gear. He describes it like dragging a butterfly net along the bottom of the Atlantic. This envelope of rings and netting comprise about ten feet of the total length. (It is similar to what commercial scallop fisherman use except that they can't use the inside liner. Their nets are bigger too - two fifteen foot dredges with 4" rings.) The ALBATROSS IV tows the dredge for one nautical mile for 15 minutes while traveling at 3.8 knots. It takes a heavy duty winch below the decking to recover the dredge back on deck. A typical dredge haul weighs about 2,000 lbs and the dredge itself weighs 1,500 lbs. Its catch is what we're after.

Personal Log

Our state rooms are small, yet big enough for three people to sleep. There is a bunk bed and one single bed on the opposite wall. Both are metal and are built into the wall. One built in desk with six drawers for clothes sits between the beds. There is one freestanding chair. Underneath the beds are three drawers for extra storage. Surprisingly we have two closets which are great for storing luggage. There is a small sink with a mirror and medicine cabinet across from the dresser/desk. A bathroom with toilet and shower sits between our room and the room next door. Two of us are on the day watch and one is on at night.

Questions of the Day

Can you estimate how many square meters we cover during that time? Can you guess the



A small fishing ship as seen from the ALBATROSS.

number of scallops we catch in one haul, depending on the station? Or the astropecten, a type of starfish that love to feast on baby scallops? Over the course of one day, after visiting about fourteen different stations during each shift, while using various sampling techniques, the answers are astounding. Look for these amazing statistics in my next log.