



NOAA Teacher at Sea
Lollie Garay
Onboard Research Vessel *Hugh R. Sharp*
May 9 – 20, 2009

NOAA Teacher at Sea: Lollie Garay

Ship: Research Vessel *Hugh R. Sharp*

Mission: Sea Scallop Survey

Geographical Area: North Atlantic

Date: Sunday, May 10, 2009

Weather Data from the Bridge

Stationary front persists

West winds 10-20KT

Seas 4-6 ft

Science and Technology Log

We began our shift today sampling in an area called Del Marva Closed Area, which is an area currently closed to scallop fishing. We conducted 8 dredge hauls last night in spite of the turbulent weather that pursued us. But today, we had calmer seas and beautiful blue skies.

The serious work of sorting and measuring the catch begins right after the dredge is brought up and secured. As it is coming up, someone on either side of the dredge uses a rake to shake the net which allows the catch to fall out. After the



The sorting begins!



The dredge is hoisted to the sorting table

net is secured, readings are taken using from a sensor mounted to the dredge. The sensor is called an inclinometer; it measures the dredge angle during the 15-minute tow. This allows the scientists to calculate the amount of time the dredge is on the bottom. Then I hop on the table to hold a whiteboard with the pertinent station information written on it next to the catch which is photographed for documentation. Then the frenzy begins! I leave and someone else gets on the sorting

table to rake the catch towards waiting sorters who have several buckets and baskets ready.

The catch is a mixture of scallops, crabs, fish, **lots** of starfish, assorted other specimens and sometimes sand. We are primarily sorting out sea scallops and fish, but have had some stations that require us to sort out crabs as well. We work quickly to separate the catch which is then taken into the wet lab for measurement. I have been working with Larry Brady from NOAA Fisheries, learning how to measure scallops using the FSCS system. The FSCS is the Fisheries Scientific Computer System which is a collection of integrated electronic devices used to gather and store station and biological data. FSCS uses touchscreen monitors, motion compensation scales and electronic measuring boards. I feed Larry the scallops one after the other as he measures them using a magnetic wand. This information is automatically recorded into the data base. Last night we had a large



Starfish are plentiful on this catch!

number of scallops to process. However, today we have seen less and less; in fact we had one catch with none! The fish are not as plentiful either although we have seen various different specimens.



Lollie and Larry Brady scrub scallop shells for special samples.

There are also special scallop samples that need to be processed. First, the scallops are cleaned with wire brushes. Then they are weighed in their shells. After this is recorded, they are opened to remove the meat and gonads, which are weighed separately. This information provides us with the gender of the scallop and can approximate their age. I dry the shells and number them. Then I put them into a cloth sack, tag them with identifying information and put them into the deep freeze.

The fish are also weighed and their species is recorded. Sometimes specimens need to be counted (I counted small crabs today). Once all the measurements are taken, everything is washed down!

That includes the deck, the sorting table all the catch buckets, the FSCS measuring boards and the lab floors. We are then ready for the next dredge haul which follows approximately 20-30 minutes later. This pace continues throughout the shift, barring any mechanical or weather issues.

Personal Log

I am very impressed by the precision of the work that the science team does. As I waited for the dredge to unload a catch this evening I reflected on how everyone does their job quickly and efficiently. It's something I never fully appreciated – that there are people out on the seas doing this very thing all the time! Already in one full day, they have taught me so much about how the fisheries system works, and they have expanded my knowledge of different marine organisms. Even as we sort quickly through the catch, they are always identifying specimens to me and answering my questions.

One of the most amazing sights for me has been the incredible number of starfish that each catch brings up! I have never seen so many, and I am learning about the different types. I am also learning how to shuck scallops for the galley for dinner. So far this has not been strength of mine, but I am determined to master this skill! By the way, our lunch today was scallop soup! The beautiful sunset today gave way to the almost-full moon shining on the seas. My shift is over for tonight, I'd best get some sleep.

Animals Seen Today

Dolphins—made a quick but too brief appearance alongside the ship today. I caught a glimpse as they raced by.

Polka dot Kuskeel

Baby Goosefish

Loligo Squid (pronounced Lollie go!)

Snake Eel

Clear Nose Skate



Loligo Squid