



**NOAA Teacher at Sea
Claude Larson
Onboard NOAA Ship ALBATROSS IV
July 23 – August 3, 2007**

NOAA Teacher at Sea: Claude Larson

NOAA ship ALBATROSS IV

Mission: Sea Scallop Survey

Date: July 25, 2007

Time: 20:30

North Atlantic Ocean

Weather Data from the Bridge

Air Temperature: 21.7° C

Water Temperature: 22.9

Relative Humidity 93%

Wind Speed: 10 knots

Wind Direction: SE 120

**Science and Technology
Log**

Today was the beginning of our first 12 hour watches. The tows were relatively well spaced which allowed for ample clean up time between tows and even for a little down time as we steamed for over an hour and I have a few minutes to write this log entry.



Jakub Kircun teaches Claude Larson how to insert the probe that measures inclination in the top of the dredge equipment.

As I learn the skills needed to be useful on the Scallop Survey, I want to give you an idea

of how a tow is carried out. The bridge generally gives us a ten minute alert before a tow over the all call system. From that point we can finish up what we are doing and prepare for the tow. A crew member operates a huge winch and block and tackle that moves a thick metal cable. The cable is attached to a large metal hook that is attached to an 8 foot wide dredge net. The net is raised from the aft deck of the ship and put in the water. The dredge net is then towed for fifteen minutes and then lifted onto the deck. At this time, a probe that measures inclination is inserted in the dredge rigging and information about the collection of the tow is recorded and loaded onto another computer for later use.

While the probe is being read, someone takes a picture of the pile of organisms on deck with a small whiteboard with important information. This information includes the station number, stratum and tow number, as well as whether this area is open or closed to commercial fishing.

The watch crew then brings baskets and buckets over to the edges of the pile and kneels on cushions to sift through the collected material. We sort the collection into sea scallops, fish and, on each third tow, we also collect crabs. After a few minutes we shift areas and continue to look for certain animals, this helps us to make sure we have found all of the organisms we are looking for. The fish are then further sorted by species. The watch chief weighs each separate species and records that information on the FSCS, Fisheries Scientific Computer System. There are three FSCS stations and we all get to work at one of them. The computer allows you to take the scallop or fish and lay it on a long board. The organism is held along the front panel of the system and a magnet is placed at the other end. The magnet causes the computer to automatically record the length of the scallop or fish. From there some of the scallop shells are cleaned for a scientist back in Woods Hole, Dvora Hart, and carefully labeled and placed in a cloth bag. Some of the scallops are also dissected for an FDA study on PSPs, paralytic shellfish poisoning. When ever we catch a monkfish, also known as a goosefish, one of the scientists on the watch crew dissects it for vertebrae for a study they are doing on aging the fish and its reproductive stage.

Once all the organisms are measured, weighed, dissected or cleaned, the remainder of the pile is shoveled in large baskets and thrown back into the ocean. Each basket and bucket is rinsed as is each FSCS station. If another tow is arriving shortly, the watch crew prepares for repeating this process. The steps happen in relatively that order, however they also occur in a sort of unison and the watch crew starts to form a rhythm. The watch chief and veteran crew members help any of the new folks on board, which is great since we are sometimes unsure what to do next or how to do a new task. The old saying of many hands make light work definitely applies here. With each tow there are surprises to dig for. Sometimes you get to see large egg cases or beautiful shellfish and unusual fish.

With all of this said, the all call has just given us a ten minute to station call. I must get ready for whatever treasures will be brought up with this collection.