



NOAA Teacher at Sea
Michele Brustolon
Onboard NOAA *Oscar Dyson*
June 28 – July, 2010

NOAA Teacher at Sea: Michele

NOAA Ship *Oscar Dyson*

Mission: Pollock Survey

Geographical area of cruise: Eastern Bering Sea (Dutch Harbor)

Date: June 30th, 2010

Weather Data from the Bridge

Time: 1600 hrs

Latitude: 57.16 N

Longitude: 169.09 W

Cloud Cover: Dense fog

Wind: 11.56 knots

Air Temperature: 5.3⁰ C/ 42⁰ F

Water Temperature: 5.09⁰ C/ 41⁰ F

Barometric Pressure: 1005.02 mb

Science and Technology Log

Fishy Fish

Why Pollock?

Walleye Pollock (*Theragra chalcogramma*) is an important fish for Alaska (and the entire United States). Although you may not know it, you've probably eaten Pollock when you have enjoyed fish sticks, a fish sandwich at a fast food restaurant, or imitation crab meat. Walleye Pollock produce one of the largest catch of any single species within US waters and accounts for over half the groundfish catch in Alaska (see: <http://www.afsc.noaa.gov/species/pollock.php> for more information)

How the Oscar Dyson helps? By surveying the Pollock populations within the Bering Sea, scientists can gather data on these important fish – including size, gender distribution, maturity rates, location, and diet.

How do we find the fish? Scientists work around the clock gathering data through acoustics to identify the locations of populations. The *Oscar Dyson* has five transducers located across the bottom of the ship on its centerboard. These transducers send out signals and the data are graphed on



Acoustic Lab with Abigail McCarthy and Neal Williamson

large computer screens in our Acoustics lab. While on shift, we eagerly await word that a fish population has been identified and await the trawl.



First trawl net to come up on Leg 2



Here I am getting ready to sort the first catch in my foul weather gear!

And the Trawl...

Luckily for me, fish were seen on my first shift and we conducted the trawl in the afternoon. The take varies



Abigail McCarthy and Kathy Hough taking samples of Pollock stomachs and otoliths



The wet lab

based on the populations identified and the net may be out for two minutes or an hour. This first trawl was out for 45 minutes before the crew hauled it in. It was amazing how many seabirds were swarming around the net as it was pulled up and how many jellyfish were caught in the lines. The first task once the catch is brought on deck and placed in the fish table, is to sort the specimens. We had Pollock, Pacific cod, and 2 types of jellies. Once the catch was sorted, the fish were weighed and then sexed. After they were sorted into Blokes and Sheilas (males and females), the fish also had to be measured. A small sample was dissected to remove stomachs and otoliths (ear bones of Pollock that are used for aging the fish) for further study.

Personal Log

While this is a continuation of the first log (it was way too long!), it focuses on the why we are studying Pollock and how the first trawl went. No fishing was done until after lunch. When the net did come up, there were five of us in the wet lab where we processed the catch; Abigail McCarthy, Kathy Hough, Rebecca Kimport, Katie Wurtzell, and me. It was very interesting to see all the information that came from a sampling of Pollock: weight, length, sex, stomach contents, and otoliths (ear bones). This brought us to the end of our 12 hour shift at 1600 hours.

Exercise was next...running on the treadmill was by far the weirdest feeling as the boat is rolling you feel as though the incline is moving up and down on its own and you have to hold on at different times. This is with pretty calm seas too! Dinner was fabulous as always. We have been spoiled here on the boat with meals like king crab legs, salmon, prime rib, Jamaican jerk chicken. Now do you see why I have to try to exercise EVERYDAY!!! I think the hardest part right now is trying to get to bed early enough so when 0315 arrives, I can get up and going.



Workout room

Animals Seen on First Shift

Euphausiids
Jellies
Pollock!!!
Pacific Cod

New Vocabulary

Blokes: male Pollock
Sheilas: female Pollock
Otoliths: ear bones of Pollock that help age the fish (they have rings that are counted much like trees)