



NOAA Teacher at Sea
Nicole Macias
Onboard NOAA Ship *Oscar Elton Sette*
May 31 – June 28, 2009

NOAA Teacher at Sea: Nicole Macias
NOAA Ship *Oscar Elton Sette*
Mission: Lobster Survey
Geographical area of cruise: North Western Hawaiian Islands
Date: Thursday, June 4, 2009

Weather Data from the Bridge

Location: 23° 15.7'N, 164° 26.7'W
Wind Speed: 8kts.
Wave Height: 1 ft.
Swell Wave Height: 3-4 ft.
Water Temp: 26.3 ° C
Air Temp: 28° C

Science and Technology Log

Today was our second full day of hauling and setting the traps. The science team is on a rotating schedule so that everyone gets a chance to work each position. Yesterday, I was a “runner”. My job was to stand in the pit next to the “crackers”. The crackers would take out the specimens and place them in a bucket and then take out the old bait and replace it with new bait. Once the pod was ready to go I would run the bucket to the lab and the pod (trap) down the pit tables to the stackers. It was a labor-intensive job, but at least I was able to see everything that came up in the trap. We did not catch many lobsters, but we did trap quite a few white tip reef sharks. Even though they are not very large they are extremely strong. I would know because I got to throw one over the side of the ship!

Today I was a “stacker.” My job was to take the pods from the runner and stack them on the fantail, the back of the boat where the traps are released later in the day. The pods are stacked 4 high and end up covering the entire back of the boat. There are 160 pods all together. We



A fish that has its air bladder protruding from its gills.

release 10 strings of 8 pods each and 4 strings with 20 pods each.



This is me in the pit when I was a "runner." So far we are catching more white tip reef sharks than we are lobsters. See the white tip on the shark's tail fin?

The main focus of the research being conducted is to collect data on the population of lobsters in the North West Hawaiian Islands. Even though we are targeting lobsters we record the data on everything we catch. Anything beside lobsters are considered by-catch. By-catch is considered anything that is caught accidentally. We are setting these traps for lobsters, but many times other animals will work there way into the pods. This is unfortunate for any fish that gets caught in the traps because they are pulled to the surface so

fast that their air bladder expands causing a balloon-like structure to protrude from their mouth. This "balloon" enables them to swim down and they end up being eaten by a predator or drowning. In a normal situation the swim bladder helps a fish regulate their buoyancy. The by-catch problem is seen in many commercial fishing industries. Usually they are dealing with a larger quantity of equipment and in certain instances, such as long lining, many sharks and turtles end up dying unnecessarily.



This is the feeding frenzy that follows the ship until the end of the day when we give them all our old bait. They are Galapagos Reef Sharks.

The two main species of lobsters that are found in Hawaiian waters are the spiny lobster, *Panulirus*

marginatus, and slipper lobsters, *Scyllarides squammosus*. Both species are also found in the waters off South Florida, but they do look a little different. The lobsters in Hawaii have more of a purple color to them. I have not come into much contact with them since my day in the lab isn't for a while in the rotation. Once I am in the lab I will be able to report back with more information about them. Tomorrow I am a stacker again, so my biceps will be getting really big. I do know that on the first day we only caught 3 spiny lobsters and on the second day 21.

Oh! The most exciting part of the day is after we have finished hauling all the traps and replacing the old bait with new bait, we dump the old bait overboard and there is a feeding frenzy amongst the resident Galapagos sharks that follow our boat.



Here I am on the fantail of the deck scrubbing the mackrel blood after setting 180 traps.

been eating a lot of fresh fish since one of the rotations included bottom fishing. I have yet to be in this rotation.

I am beginning to make friends with everyone on the ship. I am sure by the end of the month I will have forged some great friendships. It does seem like I have been on the ship for quite some time. I hope the days start going by a little faster. I am beginning to miss Florida!

I will be writing soon. Hopefully with some exciting adventures!

Personal Log

Well my feet are very sore from being wet and in shoes all day. They are definitely not used to being in closed toed shoes everyday. I am ready to start working in the lab and learning more scientific information than just performing physical labor.

With all the energy I am exerting I am definitely replacing all the lost energy with the delicious food that is different and amazing everyday. Today we had Hawaiian cornbread with pineapple. It was out of this world! We have also