



**NOAA Teacher at Sea
Elizabeth Eubanks
Onboard NOAA Ship DAVID STARR JORDAN
July 22 – August 3, 2007**

NOAA Teacher at Sea: Elizabeth Eubanks

NOAA ship DAVID STARR JORDAN

Mission: Catch rates of pelagic sharks comparing J hooks to Circular hooks in support of The Relative Abundance of Sharks Survey

Date: Day 10, July 31, 2007, Tuesday

Pacific Ocean – West of Santa Rosa, San Miguel and Santa Cruz, California

Weather Data from the Bridge taken at 1500 (3pm) - Deep Sea Temp at (2000) 8pm

Visibility: 10 miles

Air temperature: 16.0 degrees C

Sea Temperature at 700m: 5 degrees C

Sea Temperature at surface: 19.2 degrees C

Wind Direction: 300 W

Wind Speed: 15 kts

Cloud cover: clear –stratus

Sea Level Pressure: 1013.9 MB

Sea Wave Height: 4-5 ft

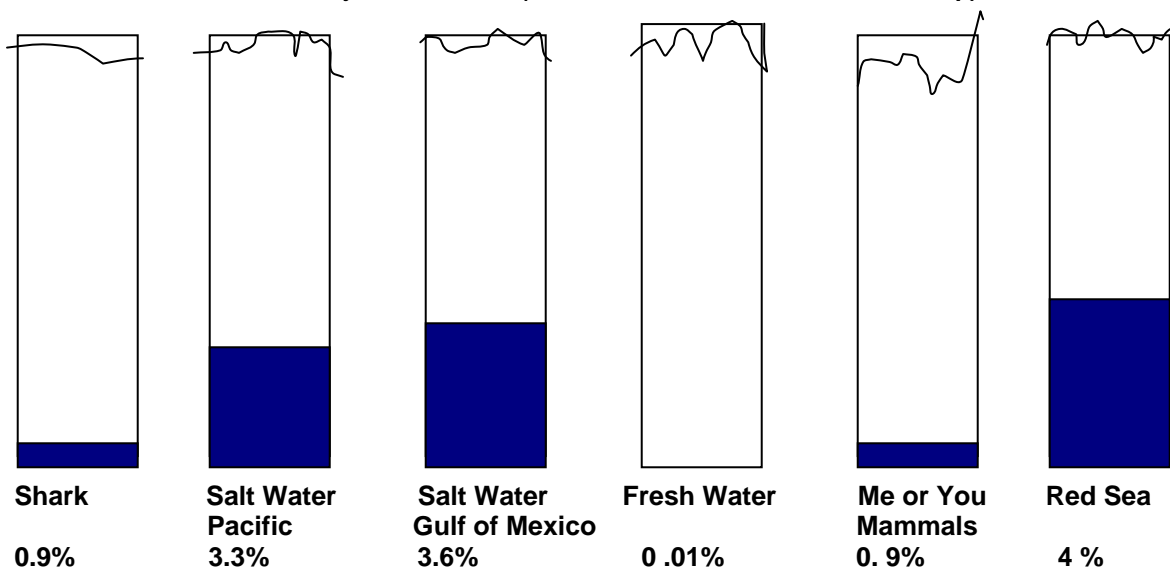
Swell Wave Height: 2 ft

Science and Technology Log

Salt, Sodium, NaCl, Salinity. How much salt is in the ocean? How much salt is in me and you? Is there a difference between the amount of salt in from the Pacific to the Atlantic ocean? How much salt is in a fish or shark? Lots of questions about salt.

I spent some time again with Dr. Jeff Graham and he showed me some nice diagrams to help me understand.

Percent of average salt content – salinity. *The top of the box marks only 10% scale subject to revision (due to lack of resources on board ship)**



Personal Log

Yeah I added a new species to my list and yesterday I was able to get a photo of the Black Footed Albatross. While we were hauling our line he kept circling. He seemed to be very interested in the line. Some of the scientists were tossing bait to him from the hooks they were debating, but he didn't seem that interested our old Mackerel.

Albatross are beautiful birds. They are the largest of seabirds and spend most of their time on the water. They have long, narrow wings as you can see from the photo below. One of the scientists on board was telling me that she read studies, indicating that they can travel 3,000 miles across the ocean, before they need to touch land. Rarely does a person have the opportunity to view them from shore unless you are on some remote island when they are breeding and nesting.

Look at the photo I took. You will notice a yellow band on left leg and a white one on his right. I am told that to band these birds, you go to a remote island and just band them. They aren't really afraid of people. – I would love to do that... When is that cruise?



Black footed Albatross—notice the tags on his legs.

Nobody likes it when this happens, especially the sea lions. This is the only we caught this trip. They put up a huge fight and this one actually got off of the line. Hopefully, he will be fine. It is such a treat to see them out here. During this set we had a lot of half eaten bait, so we believe he was having a feast!

Oh happy day,
Elizabeth Eubanks

Please direct your emails (questions for me and answers to my questions) to the email address listed below. I will **NOT** be checking my yahoo email account until I return to land!



A sea lion with a hook caught in his cheek. He was able to free himself and swim away.

elizabeth.eubanks.atsea@jonems.jordan.oma.noaa.gov

Please note: the NOAA person that is uploading my logs has been on vacation. She is currently uploading them now. If you would like to continue answering questions from my logs, you may do so up until August 8, 2007 to get extra credit. Please use my hooaca@yahoo.com account on and after August 3, 2007

Question of the Day

Salt is essential for all life. However too much salt can be toxic.

Animals have special ways of regulating the salt in their bodies.

2 part question.

How does the shark regulate its salt?

Define these terms associated with salinity and adaptations an animal makes to an environment:

Isosmotic

Hypoosmotic

Hyperosmotic

Question of the trip

Which hook, the J or Circle will catch more sharks?

Please make a hypothesis. Utilize resources to justify your hypothesis. -----Yes, you get extra credit for this.