



**NOAA Teacher at Sea
Heather Diaz
Onboard NOAA Ship DAVID STARR JORDAN
July 6 – 15, 2006**

NOAA Teacher at Sea: Heather Diaz
NOAA Ship DAVID STARR JORDAN
Mission: Juvenile Shark Abundance Survey
Day 10: Saturday, July
15, 2006

**Science and Technology
Log**

They did a swordfish set last night around midnight. We hauled in the set around 5:30am. We caught 4 blues and 2 makos. We also caught one pelagic ray.

They set a shark line out around 7:45. We were hoping to be able to finish one last set before going into port. We were scheduled to be in port around 3.



Teacher at Sea, Heather Diaz, holds up a Blue shark, caught aboard the DAVID STARR JORDAN, July 2006. Photo used by permission from Jason Larese.

Dr. Russ Vetter explained what the different computers are used for in the aft lab. There is one called at EK500/EQ50 which uses a split beam transponder to create a “map” of the ocean floor, so the scientists can use the data to find high spots, which sometimes are better for fishing. It also works as a sort of “fish finder” and the different things in the water show up in scale and color, so that you can see the approximate size of the animal/plant in the water. He also explained the Navigation computer, which digitally shows the charts (with soundings), topographical features (like islands and coastline), and our course. It also provides information on other vessels that are nearby, and when available, that vessel’s name and number...the same navigation computer they also use on the Bridge. The Nav. Comp. also provides information like our latitude and longitude and our speed.

There is another computer which monitors wind speed and direction, temperature of the water (under the boat), barometric pressure, and salinity of the water. All of these are real-time, and provide important information to the scientists.

There is also an ADCP (Acoustic Doppler Current Profiler) computer which displays a constantly changing graph of current velocity relative to the ref layer.

The very last set of this leg was a bit slower than most, which may have been a good thing, since most people were starting to get a bit tired. We had 2 blues and 2 makos. We were very pleased to find out that we had, during the entire leg, managed to capture 80 blue sharks (78 were measured, sexed, and released), 63 mako sharks (61 were tagged and released), 23 pelagic rays (23 were released, none were tagged), 3 molas (3 were tagged and released), and 1 lancetfish (which was released but not tagged). Everyone seemed very pleased with the results, and now Dr. Suzy Kohin (Chief Scientist) and Dr. Heidi Dewar will head back to their lab at Southwest Fisheries to analyze the data.

Personal Log

Last night the sky was very clear, so we were able to see a lot of stars, including the Milky Way, which was very easy to see last night. The view from the Flying Bridge (the very top of the ship) is amazing, and we felt like we could see every star in the universe, even though we know we couldn't. We could also see the far away glow of Los Angeles, a reminder that we will soon be back in port and that our trip is nearly over. Nearby, there was a large tanker and a container ship, which also looked neat in the dark. The container ship was still nearby this morning when we woke up.

The sunset this morning was amazing. There were a few wispy Cirrus clouds in the sky, which reflected the glow of the sun long before the sun made its first appearance in the sky. It was truly a beautiful sunrise, and a great way to start off our last day!

This morning after the set, everyone was a bit disappointed that we have not caught a swordfish this trip. But, Dr. Heidi Dewar said she would consider doing another swordfish study in the future.

Everyone is busy packing and getting their gear ready to go home. Everyone, including me, is excited to be going home to see family and friends, but I think most people will be a little sad, too. For me, this has been an absolutely amazing experience! I have learned so much, and I have seen more in the past week than I ever could have from reading books or watching documentaries. There is just something so special about being able to feed a sea lion, touch a shark, or come within inches of a mola to feel the power of nature and the beauty of the ocean. I am awe struck in so many ways. The people aboard the DAVID STARR JORDAN could not have been kinder, and everyone has gone far out of their way to make me feel like part of the DSJ family. Everyone from the captain and the officers, the boatswains, the stewards, and everyone in engineering has been friendly and helpful. I will surely miss everyone on board. As for the scientists, they did an outstanding job of helping me to learn things and to make me feel like I was a real part of their crew. I will miss the lapping of the waves, the rolling of the ship, the camaraderie, the food, the animals, the scenery, the sunsets, and the sunsets. And, although I cannot take any of them with me, I will have the memories of them all forever.

I want to sincerely thank Lieutenant Commander Von Saunder, the amazing crew of the DAVID STARR JORDAN, Dr. Suzy Kohin, and her wonderful team of scientists for a fantastic experience! I never imagined it would be this incredible! I will be grateful to you all for a long, long, long time! Thank you for allowing me to share these past 10 days with you, and I wish you all safe travels and many more beautiful sunsets at sea to come!