

Day 6: July 22, 2010

Another night of rough water and not much sleep. This one was different as it felt as if the boat changed based on which crew member was driving. We all chuckle on how much exercise we get each day just trying to stay still in our bunks.

I let everyone sleep in and at 8 am we had our team meeting. It was planned to be a meeting of the whole team (boat crew and science crew), but it was clear when I woke up at 6 am, it had been a rough night for the crew as they were all sleeping around the pilot house and the salon. I waited on the aft deck for the students and Kyle our cook came out and we chatted for a while. It was a glorious morning with beautiful blue skies and that midnight blue ocean with the crisp white whitecaps punctuated by 8 foot rolling swells. Kyle has generally kept to himself so far hanging out in his bunk when he is not cooking or spotting whales. Nevertheless, he assured me he is having an amazing time and described the remarkable views from the midlevel platform when whales are near. We also noted how we are so cut-off from civilization out here; we could be the only 10 people left on the planet and not know it save for the occasional comment by unseen boats over the radio.

Johnny arrived first about a half hour early. He too told me he was thrilled with the experience though, of course with him it's always self-evident by the broad grin on his face. We agreed that the work is difficult and the daily grind really tests your mental strength, particularly with the exceptional heat and lack of sleep we endure each day. But the experience is remarkable.

By 8 am, all of the students arrived and we began our review of the various stations. About halfway through the boat crew were all awake and joined us so we started at the beginning and had our first full team meeting since Iain left. We went through what worked and what did not and I reminded them all to drink more water, wear sunscreen and I also made a rule of no reading or napping on deck in sunny weather. Already, with watches and pursuing whales they were getting 8-9 hours of intense sun. Then we dispersed to our stations and the work began.

Rather quickly it was apparent that with the 8 foot swells Kellie and Matt were again experiencing seasickness and we were unable to man the midlevel platform. Compounding this problem, was the fact that the top rung in climbing to the midlevel platform had broke, making the final step too big for Cathy to ascend to it either. One of the crew was also seasick and one had to man the helm and we were quickly looking at too few people to occupy the roost. Our acoustic array is also down for reasons we are unsure of at this point. Combined these problems severely limit our ability to find whales, though Matt, Cathy and Kellie did man the lowest level platform above the pilothouse, which just has lower visibility. Combined with the 8 foot swells and numerous whitecaps, I doubted we would see much.

Johnny did a yeoman's turn in the mid-level platform, two hours of searching, standing the entire team scanning with binoculars. Captain Bob, who was on a rotation of no

helm duty decided to take a turn aloft and relieve Johnny. After an hour, Johnny relieved him, for what would be another 2 hour turn. The sun was glaring hot and beating down on the deck with no shade to be found anywhere. Bob informed me that the midlevel platform was of limited use because one had to sit and hang on to handle the swells and it was hard to see with all the whitecaps. I looked up and there was Johnny still standing and scanning. This watch would be the last one of the day and we would have to hope the lowest level platform would yield some evidence of whales. Feeling totally exhausted myself, with no escape from the heat, I figured a brief nap would help.

I had just started to slip into a doze, when Matt came down - a whale at 1 O'clock off the starboard bow. In a daze I got up and headed for the pilot house. Bob and Kyle emerged too, both similarly groggy from almost falling asleep. A second person confirmed the blow and within minutes all were at their stations scanning for the whale. Suddenly, Bob noticed an unexpected thing; the acoustic array was picking up sperm whales who were clicking so loudly we could hear them across the pilot house without even donning the headphones. Sure enough Johnny had spotted our first sperm whale. Unfortunately, it dove before we could get close enough. The problem is that when sperm whales dive they go down for an hour or so and you have no idea where they will come up. The array could have helped but while I was able to optimize the array for the sperm whale sounds, I could not get the software to run. It kept crashing and it is the software that provides the directionality to the sounds. The other challenge is that sperm whales click while underwater but are silent at the surface. We spent three hours pursuing whale blows and in most instances they dove before we could get close enough. There were a couple of calves that we did get within range of, but the smaller size and speed of them coupled with the 8 foot swells jarring Johnny and Rick in the bow, made it so the couple of attempts they each took missed.

We could not find many adults they clearly were gorging themselves on squid at depth given the clicking on the hydrophone array. After three hours in the hot sun, I reluctantly called a halt to the search. It was almost 6 pm and we just were not finding the whales we should. We have traversed a 3 mile radius and just not found them near us. Looking around everyone was melting and after a brief discussion with Bob, we decided the swells had died down sufficiently and a swim was in order.

We lowered the swim platform and I was the first one in. We were 80 miles offshore of Maryland in 4,500 foot deep water (no I could not touch bottom) and the water was 72 degrees. Given the heat of the day, it was bliss for all of us (Bob did not go in). In case you are wondering, sperm whales feed at depth not the surface and there are no known cases of sperm whales attacking humans. Kellie tried her best squid impression but alas attracted no whales, though she will now be forever known as Kellie "squid" Joyce. The swim buoyed everyone's spirits and restored our energy. We all hopped in the boat and ate dinner.

We called Iain and learned that CNN would try to call us on the satellite phone. We also learned that he asked KVH for a \$60,000 airtime donation that would give us full internet and phone access plus the ability to send video. We also called Chris Gianios to start

him on the search for what is off in the acoustic array software. Chris will sort out the problem with our partner Jonathan Gordon in Scotland and we eagerly await Chris joining us on the next leg of the journey.

All in all, though it yielded no samples we felt it a good day.

John