

Day 57: September 11, 2010

Today was an interesting day. We saw and heard no whales for most of the day making it a very slow day. There were a few dolphins bow riding that left shortly after we reached the bow. There were some birds. There were some oil slicks from some boat that cleaned its bilge pumps into the water. The water was as smooth as glass (thanks again Mr. Atkinson) but no whales. Oh, I should also mention now that I forgot to include Mr. Mark Hayes as part of our Ocean Alliance team -no offense Mark one just loses track of things at sea. Mark too is an invaluable part of the team.

Thus, the day provided a chance for me to catch up on work from home writing papers and abstracts etc. I am pleased to report our first abstract from the voyage was accepted for publication and will be presented in Portland, Oregon on November 10th. Johnny and Matt got caught up on their online classes. Bob, Sandy, Carolyn and Ian caught up on some much needed duties and sleep. Matt, Johnny and I too caught up on sleep. I have now had enough to become merely exhausted and should sleep well tonight.

I thought you might be curious to know how we visualize whale clicks and dolphin whistles on the boat. I have attached some PDF documents of them. Please excuse the picture quality I was rushing out to see the dolphins and the sun's glare was on part of the screen. The dolphin whistles are primarily seen in one program and the sperm whale clicks are tracked in another. The dolphin whistles are mostly yellows and orange and reds. When farther away they look like squiggles and streaks on the screen as you will see from the picture labeled "dolphin clicks away from boat". When near the boat the screen is bathed in colors as you will see from the attached picture of "dolphins near the boat". We can hear them over the array as they whistle and it really is fascinating to hear all of the clicks and whistles and wonder where they are and what they are saying.

The sperm whale picture is from another program and their clicks are visualized as circles of color. In this picture they are in the upper part of the picture and are large black circular dots. The line they are slightly above is the center line of the boat. Our goal is to put them at the top of that white box above the line which means they are on our bow. Below the line then means they are on our stern and we have to turn around. In this way, we can follow the whales. We can also hear them on the array too. They sound like popcorn popping and at times horse hooves on cobblestone roads.

When we hear sperm whales clicking we know they are most likely underwater as they rarely click at the surface. So we follow them acoustically listening to the clicks and moving the boat so the dots are at the top of the box. Then when they are quiet we rely on our team watching to find the blows. Today, we heard and saw nothing...that is until 2 pm when First Mate Ian heard clicks on the array and started turning the boat. About 2:30 pm, Johnny called out from the midlevel platform that he saw a whale blow and we headed for it. The team was assembled and ready to go, but the whale dove deep, which you can tell when its tail flukes out of the water.

Now sperm whales dive deep (over a mile) and long (about an hour). So we waited, listening all the while to the whale click and eat. Then a little after 4 pm Carolyne spotted the whale from the top of the pilot house and again we headed towards it. Again it dove deep before we could even get close. At a little after 5 pm, Carolyne spotted the whale again, this time from the midlevel platform, and again it dove. About 6:15 pm. Bob spotted the whale from the pilot house and again it dove. One lone whale just out of reach. Iain Kerr described this exact sort of experience when he was on during the first couple of days, but I think he was referring to groups of whales you couldn't quite reach not just this lone whale.

By now, we had the pattern. The whale would surface somewhere shortly after 7 pm. Carolyne wondered what the reward was for the person who saw the whale that led to a biopsy. A number of humorous suggestions were radioed to her including that the winner gets to be on the cover of a Japanese whaling magazine called "Let's go whaling"! In the end, it was decided it would be ice cream in port. About 7 pm everyone could smell dinner and questions rose. I was hopeful we would get one last try at a sample so I said "no dinner would not be at 7 pm tonight."

Carolyne expressed her hunger so I sent Johnny up to relieve her. But when I went outside he was on the bowsprit. So I asked Johnny which part of "go up and relieve Carolyne" was unclear. To which Carolyne yelled down that she was not about to be relieved with only about 20 minutes left of daylight. At this point, I realized two things. My team was determined to get a sample and time was our enemy as light was fading fast. Well, three things- Carolyne really wanted that ice cream too!

The sun set. Bob saw the green flash as the sun went in the water. It was about 7:20 pm and no whale and the light was going quickly. I was just about to call it a day, when Carolyne called out "whale blow behind us" and like that we turned around and headed that way. Someone called out that the whale was about 2 miles away. I gulped because this outcome had been the pattern. Every time that whale had surfaced it had been about 2 miles away and we never quite got there. Captain Bob expressed his surprise and frustration that the whale was that far off. It looked to both of us and I imagine the whole team that with the fading light and the distance we would once again come up short.

Then a different sound caught my ear. The boat engine had reached a higher pitch. We began racing through the water. I looked in the pilothouse at the gauges. Captain Bob typically has the boat at 1400 rpm when on whales. Now, it was over 2000 rpm and we were doing 8-9 knots (very fast for this boat). In short, Captain Bob had had enough and it was a last ditch effort to get a sample. The entire team was as determined as a team can be.

We approached the whale. It did not move. Closer. Closer. Still not moving. Closer and then as it had before it started to dive. Johnny readied for an attempt with Rick right behind him in case of a miss. We were close enough and had time enough for just maybe one try. Johnny took it from the bow and it bounced off the whale. Ian took a

picture of the tail as the whale completed its dive. Matt quickly gathered the data. I grabbed the net and tried to recover the arrow. Captain Bob threw in the ring to mark the arrow and we turned around to get it.

The recovery was not simple. I tried with the net. Matt tried with the hook. Then just before Captain Bob was going to try and lean down into the water, I caught it with the net and explained that I could not have Bob moving my job as well. Matt took the arrow, noted a good sample, and also noted that the arrow tip had practically become unscrewed. He then processed the sample. The light faded into darkness and Carlyne had won her ice cream!

I held up dinner until Matt was through in the lab and then we all sat on the back deck enjoying Sandy's dinner, recounting the events of the sampling (Bob was to describe it as a half court pass leading to a three pointer at the buzzer to win the game). It certainly had that feel to it. We spent the rest of the meal swapping stories and admiring the beautiful night sky.

Only one sample today, but in many ways the best one yet.

John