## Day 56: September 10, 2010

It's tough to write tonight as I am worn out. Last night was a late one for me as Matt and I had the 10 pm -12 am helm watch. By then most everyone was asleep exhausted by our 11 hour day of whales and fish. By about 12:30 am I finally made it to bed, but it was one of those nights where you really can't sleep because you simply worked too hard (that and Sandy having to crawl over me to get of the bunk whenever she needed to use the facilities). I was none too pleased nor actually surprised when 7 am came around and Sandy told me a whale had been spotted. So I rolled out of bed and stumbled to the pilothouse trying to rub the sleep put of my eyes. Sure enough whales!

It's hard to describe the events of the day as it was a tale of two cities. The best of times the worst of times etc. By 8:30 am, we had taken 4 biopsies. By 9:30 am it was 8 biopsies. By noon, we had collected 18 biopsies. Everyone was doing everything working as a well oiled machine. If you did the math carefully you would find we were averaging a biopsy about every 15 minutes!

Except of course biopsies don't come in every 15 minutes. No, instead they come in bunches of twos and threes and fours. It takes us longer than 15 minutes to process one in the lab. In no time, it was all Matt and I could do to keep up with the flow of samples. Our jobs had shrunk to a small space rarely seeing much of the outside. I swear all I did for 2 hours continuously was wash and clean glassware, forceps and knives while Matt continued to process the tissue. 18 whales in less than 5 hours! What at day.

As we pulled in the 18th sample, I asked Captain Bob if anyone had a whale in sight. He said no so I asked him to stop the boat, let us drift and eat lunch. Everyone was frankly exhausted and had has enough sun (except for Matt and me who were exhausted but had very little sun!). Sandy made peanut butter and jelly or peanut butter and fluff sandwiches and everyone shared stories of the morning. We all puzzled over what our space capacity was and worried over just how many whales we might see because it just seemed endless. And that's exactly what happened, it ended. We finished our lunch break at 1:30 pm and did not see another whale the rest of the day.

It might seem like we should have kept going. I don't think we really could have, we were all so physically and mentally exhausted. We really needed that lunch break. Moreover, the absences of whales the rest of the day allowed the team to rest and relax as we had collected 29 biopsies in only 29 hours, an absolutely exhausting pace.

I had planned to shift folks in the afternoon to protect them from the sun so we trained Carolyne in the lab and the idea was that Carolyne and Sandy would take over the lab for the afternoon and get out of the sun, while Matt and I would absorb some of the solar punishment. That didn't exactly happen and we were never on whales again today, but Carolyne and Sandy did take over the lab work with some final help from Matt. That lab work finished at 6 pm so it's hard to imagine how long we would have had to work had more whales been found. So if I had to make that call again, knowing we

would not be near whales again- I would have made the same call and stopped when we did. We needed the break and we needed to catch up. So we have now taken 43 biopsies and 35 of them are sperm whales. We also now have 4 folks on board to run the lab, very, very helpful redundancy. If only we could keep Carolyne onboard...

I do need to make you aware that the work on the boat is really just the tip of the iceberg. I am blessed with an excellent team at home too and they will also be logging long hours. Many are folks you have heard about already, Chris, James, Juli, Kellie, Ryan to name just a few. Others I have not mentioned like Hong, Amie, Jill Sinagra, Tania (due on next leg), Jane (due on the leg after that), Qin, Priya, Greg, David and Shouping. These folks will be receiving the now 48 flasks of cells we have and ensuring they grow out and get frozen down. Then some of them and some of my high school students will be working with them to understand the toxic effects in cell lines. These folks too do a lot of work and are key to the success of this effort.

Then there are folks like Jeff Kunz, Ilana Schoenfeld, Pat Woods and John Atkinson at Ocean Alliance who are helping to keep us afloat (pun intended again). John, in particular (and part of our collection of lans and Johns), has been sending me daily storm updates and since he has done so - the water has been smooth and flat. I guess Moses parted the seas and John Atkinson smoothed the Gulf! Thanks Johnny! Then there are our several collaborators who will help analyze the samples. So you see this time on the boat is really just the beginning of a ton of work by a lot of hardworking dedicated people. I do appreciate them all.

The evening brought a nice team dinner on enchiladas, which first mate Ian commented that if he had them every night he would be a happy man. He has proven to be a welcome addition to the team for his hard work, excellent disposition and fun sense of humor. We shared our thoughts on the events of the day, enjoyed the sunset and enjoyed the videos takes on the whales on our boat cams. Coming to a website near you soon (or in other words as soon as I can get them to Chris)!

We are currently off Louisiana near Texas. When we reach Galveston, I believe we will turn around and head back. The team is rested. The incubator is loaded, though I have assured everyone we have plenty of storage capacity for biopsies.

The whales are exciting no question. Truly amazing.But the work is relentless. There are no days off. No weekends. Just work all day, sleep at night (when not on helm watch) and do it again tomorrow. Even in port we work all day - we just get away from helm watches. That is many ways really tests your mettle day after day of relentless work interspersed with pounding seas. But I am glad I am here and our course is true, our mission is key and tomorrow is another day!

John