## Wednesday, April 19 – Day 9 by Dr. Wise

Dear All,

You might say we were lulled into a sense of calm and habit, by flat seas and routine sampling. Our daily rhythm has largely been the same – a couple of whales in the morning, lunch, lots of nothing, a couple of whales in the evening, dinner, bed. Ultimately, the only real variation has been the time, as the morning whales seem to get progressively earlier each day, and also whether or not the whales are above the water enough to sample. Remarkably, today's morning whale was sighted and biopsied by 8 am, and it sure looked to be a typical day of our biopsy routine. Eventually, however, it would prove to be quite different day.

Mark came to the salon and called for Johnny about 4 o'clock. Yep, sure enough it was our afternoon whale. But just then the sea started to swell and rocked us back and forth. Rolling seas do not stop us, but they definitely add a degree of difficulty as things, and people, start sliding about. On the horizon – two groups of three or four whales.

We carry three crossbows, but deploy only two. Now, that may seem silly, bit one bow is really there to be a backup, should another fail. Evaluating the situation, with a bunch of whales up ahead, I decided this day, we should deploy three biopsiers to maximize the chances of success. You know, how you have a sixth sense sometimes, well this moment was one of those times. Everyone had the sense that it was about to get crazy.

"Dead ahead" was the call. Gathered in the bow were Johnny, Mark and then Rick, each on the crossbow, with Andrea behind them with the photo identification camera to ensure we did not sample the same whale twice if possible. In the dinghy was Fanch and Carolina to collect arrows and buoys. Rachel was in the crow's nest to call out the locations of the whales. Last, but not least, Mike was at the helm to steer the boat, and Sheila was in the galley preparing food.

That left me with the tasks of recording the data, throwing the buoys, processing the samples and cleaning, preparing and replenishing the arrows. Oh, and since the arrows and buoys are being recovered by the dinghy – receive them back when the dinghy pulls aside. Piece of cake – right? I mean, I invented most of our protocols first-hand with Johnny and Cathy. I've done these tasks a lot, and after all for a couple of evening whales – should be a piece of cake.

Except. We didn't have a couple of evening whales.

We had a pod of 25 or so fin whales!

Whales, whales, whales! Fin whales everywhere!

When they exhale it makes a loud "whoosh" and when they immediately inhale it sounds like someone blowing through a 4 inch piece a PVC pipe, a deep hollow-sounding noise kind of a deep "wuuuuuuhhhhhh" noise.

So the whales were surfacing all around us with loud breaths. Rachel would radio and call out where they were. The team in the bow had a system. Andrea would spot. Carlos would call out "that one". The crossbows would click followed by a loud smack or a splash. All playing in one rambunctious biopsying symphony. You can hear it: "The whales are coming up" "Woosh, wuuuuhhh" "That one in front" "click, click", "smack, splash" "throw the buoy". Over and over. Whale after whale. Sometimes they hit. Sometimes they missed. But, for hours we went on in this steady rhythm.

Meanwhile, back in the lab....

Remember, the swells...

Yep, the rhythm was muuucch different.

Oh it started easily enough. Two arrows released. Toss in a buoy. Record the misses and the new arrow numbers. Got that. Walked the 10 yards to the pilot house to record our GPS location. As I recorded the GPS two more arrows hit the water. Then before I could toss another buoy, two more hit the water.

I tossed a buoy and the dinghy handed me arrow with samples. I went to the lab. Andrea followed to get their half. A wave hit. We skittered across the pilot house. I started working on the samples again. A wave hit. We skittered again. Finally, got them out and split them with Andrea. I rearranged the lab a bit to make it more user friendly. Mike was frantically manning the helm keep the biopsiers on the correct whales and I was madly cleaning arrows.

Wait! The dinghy was back with more arrows. "Toss a buoy". Time to do it again. A wave hit. I skittered across deck. I started working on those. Handed Andrea the first one. Then the second. "toss a bouy". "We need more arrows". More skittering. A wave hit and hit hard. All of the lab equipment including the liquid nitrogen started to skitter across the floor! Shelia came up from the galley and help stabilize the lab stuff. The dinghy returned with more arrows.

You get the idea. At some point, I no longer saw whales or heard the cacophony or sounds anymore. It was just focused on tossing buoys, getting arrows and processing samples. I had long ago found recording the data was impossible, so I sent that job up to Rachel in the crow's nest. We all worked like a well-oiled machine for over 3 hours until the sun set. The team was exhausted from the effort with so much intense concentration sustained for such a long time especially in the heat.

I am so tired I can hardly put it these few hours into words.

The day ended in a truly magnificent and stupendous way. Andrea needed to record the underwater sounds of the fin whales. They communicate on a wavelength our ears cannot hear, but the computers can. This recording meant the boat would be turned off and everyone had to be silent for at least 15 minutes. It is something that normally drives a crew crazy – no noise for 15 minutes.

But, this day, as the sun set over the mountains, and the light started to fade, as a hush fell over the boat, with everyone too tired to talk anyway, this day, the whales came to us and we all watched in amazement as several fin whales swam near the boat. We were all kids again, admiring the power and grace of these amazing animals. No sounds to hear except for the lapping of the waves, and the "Woosh, wuuuuhhh" of each animal breathing as it moseyed on by. Everyone was frozen with a big childish grin on their face, transfixed by the whales, and fully in the moment. We all felt delight and deep sense of peace and connection with the world around us.

The recording ended and we all went to eat.

We have now biopsied 36 whales total from the four species this trip. All is well with us in the Sea of Cortez. We are at anchor in Bahia Willard. We are right near where the pods of whales is so tomorrow we will start again at dawn. We are at 29.49.680 N and 114.23.230 W if you want to follow along on Google Earth or similar-type program.

You can see all the emails from Day 0 through todays (Day 9) on

www.WiseLaboratory.org

Good night from here until tomorrow.

John











