

Saturday, April 2 – In Transit – Johnny Wise

The day started early for me – many of my colleagues and friends back home likely won't believe me, because in Indiana I'm not known for being a morning person. I woke up about 5:30 am, no alarm, in time to catch the slightest hint of the approaching sunrise – my favorite time of the day at sea. Captain Oona was already up, manning the helm and greeted me with a friendly smile. I took a moment to enjoy the early morning stars and the colorful layers that were beginning to form on the horizon before setting on my duties to get our equipment and supplies ready for sampling whales – tips on arrows, crossbows in the bow, GoPros charging, and collecting all my supplies for my whale watch up the crow's nest (the seat, binoculars, snacks, water, radio).

Climbing up to the crow's nest is pretty easy on this boat – there's a wooden ladder attached between the metal cables holding the mast up. For the whale watch, we wear a climbing harness tied to the halyard rope while someone else pulls in the slack as we climb. To me this seems like a bit of an amusing approach, because the person in the crow's nest can't get down until someone releases the other end of the rope (or if they untie themselves). I chose to have the first whale watch of the day. Sunrise at sea is one of my favorite moments during the voyage – I usually get aloft before the sun breaks over the horizon, and enjoy the brisk morning air while the rest of the crew sleeps (minus whoever is at the helm). After I settled in to my whale watch, I let the moment wash over me like a gentle wave in a warm sea. The view was breath-taking. We are a few miles offshore, with a stunning backdrop of untouched desert mountains. The ocean this early in the morning is a deep forest green, and this morning it was calm and quiet – perfect conditions for biopsying whales!

About ten minutes after I was settled and searching for whales, my pops radios up to me, “you're getting slow Johnny! No whales yet?!?” Unbenownst to him, I would have the last laugh this time. Within five minute I found two minke whales a few hundred yards away. Not even an hour in to working, and already we were on whales! I had a great feeling about the day. Minkes are tough though – they are the smallest of the baleen whales, and fast. Our target is to biopsy the flanks of the whales, just below or just behind the dorsal. Due to the size of minkes, they take short, quick breaths and don't expose much of a target. In all my experience biopsying whales (over 300 documented biopsies) – only one of them was a minke, and it was a very lucky opportunity when the whale surfaced next

to us and swam across our bow. So, I wasn't surprised when these two minke whales disappeared before we could maneuver into position. Onwards to more whales!

The rest of the day passed with a handful of encounters with fin whales – the second largest of the mysticetes (baleen whales), and the fastest! We refer to them as the Lamborghinis of the whales due to their speed combined with their sleek, streamlined bodies. The day was long with close encounters, but the whales always ducking away just before we were in range. It's also important to point out the Sea Shepherd crew is new to this work – the captain has limited to no experience positioning the boat to biopsy a whale (it's kind of a niche skill). To make matters more difficult, the sea was getting rougher. The water was no longer like glass and the wind had kicked up, making biopsies a little more difficult.

When I've told people about my adventures biopsying a whale, often they think it's no problem – the target is the size of a bus! They couldn't be more wrong. Yes, whales are huge, but our target is typically the size of a few basketballs at best. The basketball-sized targets are also 30-50 feet away, moving, and have waves washing over them somewhat irregularly. Then there's my position. It's usually less than comfortable, standing or kneeling in the bowsprit, on a boat that is rocking with the waves. I have to find a position where I have my lower body (waist-down) in a fixed and secure position, while my upper body is constantly adjusting to account for the boat's movement, the whale's position, and the waves passing under us. Then there's the wind. The arrows already have a heavy tip, and tend to drop fast. The direction of the wind from where I'm shooting plays a huge factor – shooting into the wind being the absolute worst. Finally, the angle for the arrow's trajectory has to be close to perpendicular for it to work. Too sharp of an angle and the arrow can ricochet off the whale without taking a sample – or worse, it can get caught under the skin and be stuck in the whale. If it ever were to get stuck, it would simply fall out next time it dove, but we would never know when and would lose the sample. Hence, we don't shoot unless we have a good angle. Amusingly enough, I've done this so much that my aim is actually better on the boat than it is on land with a stationary target!

After several frustrating attempts at chasing whales and just barely missing our chance, we finally came close enough to one to be in range and at the correct angle. As we approached, the air was tense – everyone had been working hard all day hoping for a sample, and had encountered many frustrations. Again, these whales are fast! We counted the breaths the whale was taking. We had been tracking this whale for a long

time, so we had a good sense of its habits – 5 or 6 breaths, then a larger arch, then a dive for 10-15 minutes. At breath 5 it was still just out of range, but it hadn't arched yet – one more! Whoosh! The 6th breath. Then it slowed down slightly as it arched – just enough for us to get the right angle. I saw a clear line to my target, release my arrow and watched it fly. Just as it reached the whale, a big wave washed over the whale's back, and I saw the arrow bounce over the whale's back and land in the water past it just before it dove. A weird trajectory for an arrow. The arrow was too far away from the boat to scoop up right away, so someone threw in a buoy to mark it. We circled back around and did our little boat dance to pick up the arrow, then the buoy. The arrow was presented to me in the net, and inside the tip – there was skin! We had our first biopsy of the voyage!

While the rest of the crew worked to pick up the buoy, I brought the arrow with the skin sample to the salon. JP, Sean, and Carlos followed me – JP with a fancy video camera and a fuzzy microphone, Sean with a digital camera, and Carlos to see the sample. This is when I realized we didn't have petri dishes – what I would normally use to chop up the tissue. So instead, I asked for a plate from the galley. With latex gloves on, a scalpel and tweezers ready in front of me, and a camera crew surrounding me, I unscrewed the stainless steel tip and removed the skin sample. As it had ricocheted off the whale's back, it was mostly skin – but it had a tiny bit of blubber. To give you a sense of size, the sample is usually about the size of a pen cap. For this voyage we are sharing our samples with a Mexican professor who sent his PhD student (Carlos). To process the sample, I first cut it longitudinally in half – one half for us, the other for Carlos. Our half I then cut the skin away from the blubber – the skin is usually about a centimeter thick. All three pieces – Carlos's, the skin, and the blubber – each go into a small cryotube that I label and store in a box in our freezer. When we get the samples home – the skin will be analyzed for metals while the blubber is analyzed for organic contaminants. With the first sample finished and in our freezer, I cleaned up my station and returned to the deck. I felt a sense of relief – the tension of the air had washed away, I no longer felt on edge. We had proven to Sea Shepherd we were pros, and we had their attention.

There were no more whales for the rest of the day, and we anchored in a small protected bay called Porto Refugio. Since we had arrived at night, we had no clue what the area looked like. As we sailed in, Mark gave us his astronomy presentation – walking us through the constellations, the legends behind them, and the science for why they were invented. The stars here are absolutely breath-taking. There is no light pollution from

anything – we passed by no coastal towns and saw no other boats all day. We are very much in a rare expanse of wilderness that remains on our crowded Earth.

Johnny







