

Anne Casselman's Perspective

Title: Boat Meets Bus

By: Anne Casselman, Expedition Writer, Expedition Blue Planet

While Alexandra Cousteau's [Expedition Blue Planet](#) bus was parked in Mobile, Alabama we had the good fortune of meeting up with the crew of the Odyssey, the Ocean Alliance's research sailboat not once, not twice, but on three occasions. Each time was a charm.

One of the films that we are producing from our time in the gulf is about indicator species of which sperm whales, the subject of John Wise's lab's environmental and toxicology research at sea, are a perfect example. So when we drove out to Steiner's shipyard in Bayou Le Batre, Alabama where the Odyssey was docked to film Alexandra's interview with John and his crew we were excited.

All of us fell for the crew of the Odyssey and their mission right away. Whether it was Captain Bob recounting how to sidle up to a whale in a 94-foot long sailboat ("The trick is to approach slowly and quietly") or the answer I got when I asked what sperm whales sound like. "It sounds like..." Captain Bob paused and snapped his fingers once. It took me a couple seconds to figure out that his snap was what the sperm whales sound like coming through the hydrophone. "If you've got many they sound like a bunch of horses on cobblestones," Captain Bob elaborated. At that point the pilot house erupted into a chorus of everyone snapping. The self-professed tech guy Chris Gianios even threw in some flamenco moves with his snaps for emphasis. Shh, shhh I urged them. The cameras were rolling as Alexandra interviewed Cathy Wise about her at-sea experiments on whale cell lines in the boat's main salon just below us.

That day was great for all of our production crew. While everyone busily shot the interviews and gathered the footage they needed John was patient enough to walk me through his research so that we could write a [blog post for our own expedition blog about his research](#). Alexandra got a demo of how Johnny collects the tissue samples from the whales and a thorough tour of the boat, a unique lab/sailboat hybrid from the mini-fridge in the pilot house that houses tissue samples to the bottles of cell culture medium (that Johnny likens to gatorade) that stand sentinel in the fridge inside the aft cabin lab that doubles as John's bedroom.

John explained their research really succinctly: "So the study you'd like to do is you'd like to, if you could, have a tank of whales that you don't expose to a chemical and then a tank that you expose to a little, and then a little more. We can't do that," he said, stating the obvious. "The next thing you can do is cell culture." So they grow lines of whale cells, expose them to toxicants and look for resulting DNA damage, a harbinger of carcinogenic properties. Parallel to this research, they analyze tissues samples collected from whales in the Gulf of Mexico to see what toxins accumulate in their tissues.

Last summer they discovered that hexavalent chromium is a major baddie for whales, corroding the genetic material in their cells and increasing their risk for cancer and reproductive problems. I didn't realize that we all cross hexavalent chromium's path pretty much every day. It's in rust inhibitors, paints, dyes and inks. The yellow lines on our roads have hexavalent chromium in them. It's even cast in the movie Erin Brockovitch as the antagonist. Still, listening to Wise tell me about his research on it, it's remarkable to learn that in the entire big blue sea there's enough hexavalent chromium to make its way into sperm whales and endanger their health.

Of course this year the research focus is on oil, dispersants and the mixture of the two. The results are still rolling in and while we all do mightily hope that the whales will fare just fine, if anyone is going to quantify the bad news about the Deepwater Horizon's effect on sperm whales, there is absolutely no doubt in all of our minds that it will be John and his team on board the Odyssey.

Several of our crew went out to Bayou Le Batre again that week in the evening with a catered dinner for our guests from RBC Bank and the fabulous crew of the Odyssey. We were the guests that simply couldn't shed! Captain Bob and First Mate Ian very kindly obliged us and hoisted our field producer Ali Sanderson up to the crow's nest where she took all these great photos. Our film editor Jonnie followed suit but this time I was the one at the winch, to the benefit of toning some parts of my shoulders that I didn't even realize had muscle. Alexandra went up the faster way and climbed the rope ladder up to the crow's nest. In short, we were clambering all over the ship. And then the next morning we came out yet again to interview John in more depth.

There's a saying that fish and visitors stink after three days and I do hope we managed to bid adieu before we reached that point because we're all awfully keen to follow up with everyone when we come through Portland, Maine later this fall during our own 138-day long landlubber road-bound expedition across North America investigating this continent's chief water use and management stories.

And hell, if we didn't here's hoping their nostrils are acclimatized to the scent of stinky fish from their time at sea enough that they didn't notice (now I can't say the same of the [three days our cameraman Ian Kellett spent on their ship gathering footage of sperm whales](#)).