

## Cyndi Browning's Reflection for Leg 1

Hi! My name is Cyndi Browning. I'm a first year PhD student with the Graduate School of Biomedical Sciences at the University of Maine. My studies concentrate on toxicology and I started working in the Wise lab at USM in May. Joining the Odyssey for this voyage was exciting for me as it merges my past experience and my future research goals. Before starting the PhD program, I worked as a marine mammal observer. Most of my work focused on endangered populations. Through this work I became very concerned about how environmental pollutants are affecting the physical and reproductive health of these animals. These animals act as sentinels for human health too and the affects we see in them may extend to human populations in the future.

The voyage to assess the effects of the Deepwater Horizon accident is the perfect example of how such topics can be investigated. Since we left Key West two weeks ago, we have collected sargassum weed, crabs, fish, krill, shrimp, water and sediment samples. We also collected biopsy samples from four Sperm whales and one Bryde's whale. One of my jobs on board was to process the biopsy samples. I was excited to be assigned this task as it is the transition point between obtaining the biopsy of the whale in the field, and the subsequent analysis in the lab. The process starts in Odyssey's on-board lab, which is the first of its kind. The lab is outfitted with a chemical hood that acts as a sterile working surface, a microscope, an incubator that keeps the cells at the perfect temperature and CO2 level and a mini-fridge for storing supplies. After the team obtained a biopsy sample, I would remove the sample from the biopsy tip and divide it up for future analyses. Part of the sample was cut up into tiny pieces and put into small, plastic flasks to be stored in the incubator in order to grow cells from the sample. Using this method, we plan to grow a cell line from each whale biopsied. Luckily, we had beautiful weather for the entire 12 days and doing this work was relatively easy. I can't imagine how hard this task is when the boat is rocking and rolling in rough seas!

All this serious science comes with a lot of perks! We enjoyed a lot of days of beautiful weather, saw whales, sharks, turtles, bait balls of tuna and bow riding dolphins, and ate dinner under the setting sun each night. As I head back to Maine, I'll leave with some great memories. This trip has also reaffirmed for me that I'm in the right place to pursue my research interests. I look forward to working in the Wise lab and learning how to assess the effects of pollutants on both marine mammals and humans.