Spotlight on… Suzanne OConnell

written by Maya Pincus (USSSP)

Credit: Suzanne OConnell

When I sat down to interview Dr. Suzanne OConnell, I was expecting a 20-minute summary of her research and the ocean-drilling expeditions she sailed on to make those investigations possible. I wasn't expecting to spend an hour swapping stories about growing up in the northeastern U.S. (New England for her, New Jersey for me), the geology professors at our shared alma mater (go Oberlin!), and our pets (her Finn is a beautiful young Nova Scotia Duck Tolling Retriever; my home is overrun by a motley gang of two stray cats and an 18-year-old mutt).

I bring this up not to diminish the many accomplishments of her long career, but as a grounding reminder that even the heroes of our field had to start somewhere. If you're anything like me, still trying to figure out what you want to do when you grow up a decade after most of your friends decided it was time to get married and have kids, it's a breath of fresh air to hear the winding path that Suzanne took to find her "forever" job.

Suzanne was on my radar for a number of articles she had written that kept popping up in my field of relevance. Even before NSF announced the end of funding to our beloved *JOIDES Resolution*, my education and outreach group had been talking about modeling an "IODP Greatest Hits" text after Suzanne's GSA Today retrospective on the 50th anniversary of scientific ocean drilling. When Women's History Month hit, I kept running into her analyses of the leaky pipeline of women in academia, and more specifically, in oceanography. Off the bat, these coincidences indicate two important things to know about Suzanne: She is devoted not just to her research but to helping teach the world about what she knows, and she has dedicated her career to fighting the social, political, and economic injustices that make science less accessible to some than to others. A social justice warrior in the most admirable sense of the word, Suzanne uses her role as a researcher and educator to empower students of all backgrounds to use science to leave a positive impact on both their own futures and the world.

Suzanne practices her highland bagpipes on the helideck during Expedition 312, summoning the incoming rain clouds (Credit: IODP).

Suzanne uses a hand lens to inspect an Iceberg Alley dropstone during Expedition 382 (Credit: Lee Stevens & IODP).

Her scientific ocean drilling story begins with a whisper, echoing through the hallways of the Oberlin College geology department. Speaking of the wife of the late department chair, who "had an office somewhere in the rafters," the male professors said reverently, "She sailed on the *Glomar Challenger*." Though it was years before Suzanne had the chance to sail on that hallowed ship, the way the men of her department talked about the woman who had sailed certainly made an impression.

In the years after undergrad, Suzanne worked in Yosemite for a year, mapped ophiolites in Newfoundland for her masters degree with the State University of New York at Albany, toyed with the idea of a career in oil exploration, then settled on a position as the Science Coordinator for JOIDES, the Joint Oceanographic Institutions for Deep Earth Sampling. After that two-year position ended but before the start of her doctorate at Lamont-Doherty Earth Observatory, she had the opportunity to join her first expedition on the *Glomar Challenger*, Leg 74. A few years later she sailed again on Leg 96, its "bittersweet" final expedition. In the years since, she sailed on the *JOIDES Resolution* six times: twice as a Staff Scientist, three times as a member of the science party, and once as an educator for a now-retired program at the Science Museum of Minnesota.

Suzanne's research now focuses on how the past can help us understand the present and the future. Specifically, she studies marine sediments from high latitudes, interrogating them for what they can reveal about our planet the last time atmospheric CO_2 levels were above 400 ppm. Through analyses of microfossil abundance, sediment grain size, and geochemistry, she answers the questions *How fast did the ice sheets melt then? What does that mean for the ice sheets now, and for Earth's global climate system?* She reads the layers of sediment in ocean cores like pages in a book, teasing out the interconnected history of Earth's ice, oceans, and climate.

A prolific writer, Suzanne has authored and co-authored over sixty scientific papers, and regularly publishes articles that translate the complexities of geology to matters anyone could understand and get excited about. She speaks with pride about the number of students she has mentored over the years. Though not all of them have ended up as career scientists, she still keeps in touch with many of them, demonstrating that she is as accomplished a teacher as she is a paleoceanographer.

With only one year left before the demobilization of the *JOIDES Resolution*, the long-delayed Expedition 395 is guaranteed to be Suzanne's last cruise. But going back to the theme of coincidences, this expedition will mark a special anniversary: She celebrated her birthday on her very first trip to sea. Happening during the same summer months as Leg 74, Expedition 395 will be a chance for her to bookend her ocean drilling career with another shipboard birthday.

Suzanne's students pose in front of a historical photo at the 2013 Geological Society of America conference in Denver (Credit: Suzanne OConnell).