

CAREER PROFILES Options and Insights



Photo credit Amy Litwiller

Meredith White, Director of Research and Development,
Mook Sea Farm – meredith@mookseafarm.com

ing while I was a postdoc and a visiting assistant professor that helped me make the connections that led to my current job.

Is this the only job (post-academia) that you've had? If not, what else did you do?

Yes, this is the only post-academia job I've had. I've been in this position for four and a half years.

What is your current job? What path did you take to get there?

I am Director of Research and Development at Mook Sea Farm, an oyster hatchery and farm on the Damariscotta River in Maine. This position is rather unique. Larger oyster farms on the West Coast often have research scientists, but it is more unusual on the East Coast, where farms tend to be smaller. It was a big investment for Mook Sea Farm, at the time with ~25 employees, to hire a full-time research scientist. However, Bill Mook, the founder and owner of Mook Sea Farm, is very forward thinking. My job is focused on research that will build resiliency into the farm operations, most often resiliency to the changing environment. I first met Bill through the Northeast Coastal Acidification Network and later through the Maine Ocean Acidification Commission. Larval production at Mook Sea Farm hatchery had shown impacts of coastal acidification, which brought Bill into the ocean acidification community. He fully understands and appreciates how quickly coastal waters are changing and wanted to be prepared to meet those change-related challenges head on with a science-based approach. While I was in a one-year visiting assistant professor position, he casually mentioned that he was thinking of hiring a research

scientist, and I quickly blurted out, "Well, my job ends next summer, and I'd be very interested in that." We connected soon after, and he ultimately decided that with my background in oceanography, larval bivalves, and algal culture, I would be a good fit for the position he was creating.

What did your oceanographic education (or academic career) give you that is useful in your current job?

Oyster farming involves a lot of oceanography. Knowledge of physical, biological, and chemical oceanography, as well as oyster physiology and ecology, helps me understand what challenges these bivalves are facing as their environment changes (e.g., warming water, lower saturation state, changes in phytoplankton species composition and availability, increases in pathogens). Oceanographic knowledge also helps me interpret changes that we see in our oyster production, based on water data collected by a University of Maine LOBO (Land/Ocean Biochemical Observatory) buoy near our farm. My academic background has also given me the necessary skills to seek out new knowledge from journal articles, including simply how to read those high-level papers and process information.

Is there any course or other training you would have liked to have had as part of your graduate education to meet the demands of the job market?

Having more workshops that prepared me for a non-academic job market would have been helpful—such as how a resume is different from a CV. My graduate work included a lot of hands-on work, including some experimental system fabrication and basic plumbing, that has proved to be useful in my current job, so that is great!

Degree: When, where, what, and what in?

I earned a bachelor of science degree in biochemistry at Lafayette College in 2006. I always intended to go into ocean science in graduate school but wanted to complete my undergraduate degree in a less-specialized science. I went on to get my PhD in biological oceanography in 2013 from the MIT/WHOI Joint Program, with thesis research focused on impacts of ocean acidification on larval bay scallop development.

Did you stay in academia at all, and if so, for how long?

After completing my PhD, I went on to a three-year postdoc at Bigelow Laboratory for Ocean Sciences in Maine. My postdoc research continued to look at biological impacts of ocean acidification, but this time on phytoplankton and zooplankton-phytoplankton predator-prey interactions. I also spent a year as a visiting assistant professor in the Department of Earth and Oceanographic Science at Bowdoin College.

How did you go about searching for a job outside of the university setting?

I am in a very fortunate and somewhat unique situation because this dream job landed in my lap—I didn't go searching for it and I didn't even have to apply for it. However, I would say that it was network-

Is the job satisfying? What aspects of the job do you like best/least?

The job is incredibly satisfying, but also stressful at times. The results of my research can be implemented into our hatchery and farming practices very quickly, even within a day of completing an experiment. I don't need to wait months/years to write a paper, wait for reviews, wait for publication, and then wait for people to start citing that work to see that my research has made an impact. That is amazing! The job is also extremely dynamic—I work on projects related to microalgae, larval oyster

production, and market oyster production. I feel like I am always learning new things, working on new projects. This is in contrast to my academic work, where I felt that I was focused on a very specific niche. At the same time, I sometimes feel like my understanding is more broad and less deep. As for the stress, last year, our hatchery faced extreme production challenges that threw us into a tailspin. I had never been in a situation where my ability to solve a problem would affect whether or not people could retain their jobs. However, with extremely hard work by everyone at Mook Sea Farm, and with

help from our academic partners, we were able to restore production and reach an understanding of the underlying problem at a rate that would have been unachievable in an academic setting.

Do you have any recommendations for new grads looking for jobs?

NETWORK! Seek out opportunities to participate in workshops that involve people outside of academia and serve on committees, commissions, or working groups with a diverse group of members. That is ultimately how I came to my current position. 🌐