

CAREER PROFILES Options and Insights

Katherine Segarra, Supervisor, Biological Sciences Unit, Office of the Environment, Gulf of Mexico Regional Office, Bureau of Ocean Energy Management – katherine.segarra@boem.gov

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

I obtained a bachelor's degree in environmental science from Brown University in 2002. It was an interdisciplinary program with a broad focus: natural science and math courses mixed with environmental law, policy, and economics. After a few years off, I entered a master's program at Tulane University. Then, Hurricane Katrina blew me away from New Orleans and on to the University of Georgia where I graduated with a PhD in marine sciences in 2012. My dissertation research focused on wetland biogeochemistry.

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

Upon entering graduate school I knew I did not wish to pursue a career in academia. It felt like a secret at the time, one that I shouldn't reveal if I wanted the same opportunities as those aiming for professorships. I intended to complete a master's program and then apply to law school. My career goals weren't fully formed, but I knew I wanted a career making environmental change; law school seemed like the logical next step. However, I love science and enjoyed the research more than I expected. I decided to stay for a PhD and put law school aside. As I went through my program, I kept an eye on postgraduate options for applying science to contemporary problems.

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

I limited my search almost exclusively to fellowships and internships with state and federal agencies. Most of these positions are short-term (1–2 years).

I figured I'd try my hand at policy to see if it was a good fit. If not, academia would be there.

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

Immediately after graduate school, I served as a Knauss Marine Policy Fellow in Washington, DC. The Knauss Fellowship (<https://seagrant.noaa.gov/Knauss-Fellowship-Program>) places graduate students with an interest in ocean, coastal, and Great Lakes policy in executive or legislative offices for one-year paid fellowships. I worked in the Office of the Oceanographer of the Navy on climate security and readiness issues as well as interagency policy development. I had an excellent mentor that year, and the fellowship was a wonderful introduction to federal policy work. While the Department of Defense mission isn't fully aligned with my values, our objectives were clear and our leadership was decisive. I learned a lot that year about how to write concisely and clearly for different audiences and how to communicate scientific information to decision-makers. I was a member of Task Force Climate Change, where we were able to cut through most of the political chaff surrounding the issue and focus on acute, empirical threats to our nation's security and the Navy's operations. When you operate mostly at sea level, rising water is a real concern.

After my fellowship, I applied for several jobs and landed at NOAA in the division of Oceanic and Atmospheric Research (OAR) as a term federal employee. I was a program coordination



officer (PCO) for OAR, which means I served as a liaison between my line office and the front office. I also had the pleasure of staffing then NOAA Administrator Kathryn Sullivan, an oceanographer and astronaut. It was an exciting, fast-paced job. I wrote speeches, I researched and delivered briefings on various science policy issues, I planned external engagements, and yes, sometimes I fetched coffee. I was able to continue work with climate change policy, including the National Climate Assessment and President Obama's Climate Action Plan.

After a couple of years in the nation's capital, I decided I liked the city and the work, and I wanted something more permanent. I learned the Bureau of Ocean Energy Management (BOEM) in the Department of the Interior was hiring through a LinkedIn connection and applied for a biological oceanographer opening in BOEM's Office of Environmental Programs. The position was in the Environmental Studies Program, which supports scientific research specifically targeted at informing policy decisions on the development of energy and mineral resources on the Outer Continental Shelf. The job was well suited for my vague career objective: use science to do good. I was able to apply my scientific training and my experience

with federal science policy to understand and mitigating the impacts of our work on biological resources. During my application and interview process, I learned of several specific examples in which BOEM's science had been used to shape agency decisions that resulted in better environmental outcomes. That really appealed to the pragmatic environmentalist in me. I worked in DC for five more years and filled several roles during that time. Luckily, my supervisors were incredibly supportive and encouraged career development. I traveled beyond the Arctic Circle on a NOAA-funded research cruise in the Chukchi Sea where I saw both walrus and polar bears. Then, BOEM detailed me to the Council on Environmental Quality for the last few months of the Obama Administration. I stepped in just in time to contribute to a final, impressive surge of major environmental conservation achievements. And then, yes, sadly watch many of them be overturned with a flick of the next President's pen.

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

I've officially held four positions at BOEM, the last two being in the Gulf of Mexico Regional Office back in New Orleans. I am currently Supervisor for Biological Sciences in the Gulf of Mexico Regional Office of BOEM. I was the Coastal Science Lead for two years prior to taking this position.

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

My marine environmental and marine science education and training have been useful for both finding jobs and applying that knowledge in those positions. On a daily basis, I rely upon my understanding of Earth's systems and natural processes in my job. At times, I even get to apply my biogeochemistry knowledge. My colleagues and I come up with creative approaches to answer real-world questions, such as how are fish affected by

marine seismic surveys? Or, what are the migration patterns of birds in a potential wind energy area? My scientific training has also made me a good analyst, a critical thinker, and a problem-solver. I use these skills in all aspects of my job, not just the technical content. As a survivor of a PhD program, I have learned a lot about failure, resiliency, and self-motivation. The tide isn't always going to go your way, and the best you can do is have a good plan and a steady boat.

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?

The ideal candidates for our team would have a solid ecological background, good communication skills, and be adept at working on a team. I avoided computer work as much as possible in graduate school, so modeling and GIS were skills I never developed. I found opportunities to learn a bit of modeling on the job (it was painful) and I finally learned GIS a couple years ago. These both would have been useful and very marketable skills earlier in my career. A lot of what we do in BOEM is manage projects from conception to completion, so being able to demonstrate project management skills or formal training would likely be helpful in many positions.

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

I like this question. It pleases me to write that I *do* find my job satisfying. There are frustrations and challenges, as with all jobs. For me, one of the hardest aspects is separating my own principles from the work, which is governed by (imperfect) regulations and the ever-shifting priorities of Administrations. At the end of the day, I am a bureaucrat. But I like to think I'm an effective bureaucrat working alongside talented, dedicated colleagues to achieve better results for the habitats and species potentially affected by energy development and mineral extraction. The work we do has real impact and application.

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

Be flexible. It's ok to take detours; those experiences and skills almost always become useful later. Say yes to things, even if you think you might not be good at them. Do informational interviews to build your network, to identify jobs you might enjoy, and to study possible career pathways. Proofread your cover letters. Learn about your potential employer and incorporate that information into your application and interview. Always, always send a thank you note after an interview. As you move through your career and consider the impression you want to leave, consider this quote from Maya Angelou: "People will forget what you said, people will forget what you did, but people will never forget how you made them feel." 📧