CAREER PROFILES Options and Insights

Ariana Sutton-Grier, Visiting Associate Research Professor, Earth System Science Interdisciplinary Center, University of Maryland College Park – ariana.suttongrier@gmail.com

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

After completing bachelor's degrees with honors in both environmental science and international studies at Oregon State University in 2000, I went on to earn a PhD at Duke University. My research in Duke's then-new ecology program focused on the biogeochemistry of restoring wetlands, specifically determining how using soil amendments or planting a diversity of species could impact nitrogen removal. I finished in 2008, just before the housing bubble burst and the economy went into a tailspin.

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

I did a research postdoc at the Smithsonian Environmental Research Center, working on iron and carbon cycling in Chesapeake Bay estuarine system wetlands. I applied for academic jobs during this time, but there were not many available. A response to one application told me that I was one of 895 people to apply for that one faculty position. Clearly, an academic job was not coming for another several years, if at all, so I began exploring other options. On the advice of my postdoc advisor, Pat Megonigal, and a couple of his previous postdocs who had gone on to become AAAS Science and Technology Policy Fellows, I applied for and received that same fellowship. My AAAS placement was working in the NOAA Office of Habitat Conservation in the National Marine Fisheries Service; I helped to set up the nutrient trading framework for the Chesapeake Bay, part of President Obama's executive order to clean up the bay, and served as the NOAA representative on the Chesapeake Bay Environmental Markets Team for two years. I also worked on a budding topic called "blue carbon" and participated in assembling a publication that described jobs created by coastal restoration projects-one of the few studies to examine the economic impacts of ecosystem restoration. These assignments included considerable contact with social scientists, and I discovered that I loved contributing my natural science expertise to multidisciplinary collaborations. I learned about natural resource economics and environmental markets. As these new skills enabled me to focus on improving conservation efforts, it finally felt as if I was "doing something" to help the environment—which is what I had set out to do as an undergrad more than 10 years before.

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

Anyone looking for a US federal job should access USAjobs and sign up for topic area alerts. It's also wise to let people know you are looking so they will send you relevant postings. Note that many agencies, including NOAA, hire a lot of contractors who are not federal employees but who function very similarly to them. And then there are agencies that hire contractors who do not function like federal employees (this is more typical at the Environmental Protection Agency, for example). These contractor positions are a great way to get government experience without having to get a federal job, which is very challenging and can be frustrating and slow. Fellowships are another great way to get federal experience (see below for more on this).

When I finished my AAAS fellowship, it was 2012, and the economy was starting to recover from "the great recession"—but it was a slow process. I continued to apply for the few academic job opportunities that seemed like a decent fit, and got some interviews, but never an offer. I also applied for jobs with nonprofits and with the federal government. There was one offer, but I was concerned that the job was going to take me very far away from science. The job that I did take after my fellowship was to work



with National Ocean Service (NOS) Chief Scientist Paul Sandifer. Working with Paul was one of the highlights of my career. It came with a few challenges, however, in that the government was operating under a continuing resolution when I started, which meant I could only have a 90-day contract, and then another 90-day contract, and then finally a five-month contract. It wasn't until the following summer that I got a one-year contract. So, this job came with a lot of financial uncertainty. Paul helped me figure out how to support NOS leadership while also working to build a position that was a good fit for me. Eventually, I became the PI of a research grant that involved both an academic appointment at the University of Maryland looking at coastal resilience and working on science policy at NOAA's Silver Spring headquarters—a perfect fit for me.

The almost five years I spent in NOS was a time of tremendous growth for me in terms of expertise and research and I thrived. However, leadership changed, and the grant I was on had only another year. So, I had to start looking for a job again.

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

I immediately set about looking for other jobs, and I tapped my fairly extensive federal network to see if others knew of positions that were opening up. After a broad search, I ended up getting a position as Director of Science with the Maryland/DC chapter of the Nature Conservancy, where I stayed for a little over two years.

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

I am a Visiting Associate Research Professor in the Earth System Science Interdisciplinary Center (ESSIC) at the University of Maryland College Park. I was promoted to this position in 2017 after being at UMD three years. I also work in the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget (OMB), which is part of the Executive Office of the President. I had never heard of OIRA until a former AAAS fellow and colleague emailed our jobs listsery with the position opening. I got an interview in February 2020, right before the COVID-19 pandemic shutdown began, and started in early July. I have been 100% remote in this job since starting. Onboarding completely remotely is quite challenging, particularly when learning an entirely new job with lots of unfamiliar processes and different management software. I had been told that nothing really prepares you for a job in OIRA, and I think that is true. My experience at NOAA has been quite useful as background, but my responsibilities in OIRA have meant learning a ton and improving my diplomatic and organizational skills. My work includes regulation review in the Natural Resources and Environment (NRE) branch, which means I help review actions in the Environmental Protection Agency, the Department of the Interior, and NOAA. Work in OIRA tends to be fast-paced, and it is not uncommon to see topics or rules that I am working on show up in news headlines. I am also on the team working on the social cost of greenhouse gas update that President Biden called for in Executive Order 13990 on his first day in office. I am now in the very heart of the new administration, and there is never a dull moment.

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

My background in biogeochemistry and

how nitrogen or carbon move in ecosystems and around the world has come in handy repeatedly in my career. Those foundational conceptual models and ways of thinking about the world have been useful many times. I love explaining some of the science behind why coastal wetlands are such good "blue carbon" sinks to folks, and it is because of my biogeochemistry background that I can do that.

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?

I wish I had taken natural resource economics in graduate school and considered a career in environmental social sciences. It has only been since finishing my PhD that I even realized how useful and exciting those disciplines can be. That said, I love being a natural scientist on a team with others from different backgrounds. I love that my science training makes me evidence-driven; that approach has been useful in a number of working groups and infuses all of my work. Is the job satisfying? What aspects of the job do you like best/least?

My job can be exciting, but it also is challenging because there is never an end to the demands, many of them high intensity with a very fast turnaround. It is not a job for the faint of heart. OMB is an incredible place to work, with colleagues who are super smart, extremely motivated, and very hard working. I am pushed every day to do my best, but it is stressful. You have to learn to figure out how to balance work and other aspects of your life; otherwise, work will take over everything. I am given a lot of independence, which I appreciate. One of the very favorite parts of my job is knowing I have colleagues to whom I can turn when I have questions about just about anything.

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

Do informational interviews¹ with as many people as you can. Figure out what they do, how they got there, and whether you might like a job like that—the objective here is NOT to get you a job but to help you learn

about others' jobs and build your network.

Also, do whatever you can to get a diversity of work and life experiences, including volunteer work. Be the one to say you will help lead writing that report, or convening that working group, or whatever it is, so that you get leadership and other life experience. That will help you grow and develop beyond your studies.

Lastly, be aware of all the amazing fellowship experiences² available, many of which require applications before completing grad school, such as the Presidential Management Fellowship and the Knauss Sea Grant fellowships. These are both wonderful opportunities to try out the world of science policy without making a long-term commitment. For undergrads, there is the Hollings scholarship at NOAA that takes applications from sophomores and offers 10 weeks of working at NOAA with a mentor over the summer before junior year.

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¹ https://www.careercontessa.com/advice/perfect-informational-interview/; ² https://www.aaas.org/resources/science-policy-resources