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CAREER PROFILES Options and Insights

PAUL BUNJE | Senior Director of Oceans, XPRIZE Foundation, paul.bunje@xprize.org

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

I received my PhD in integrative biology in 2004 from UC Berkeley, where I studied the evolution of diversity using phylogeography and systematics in a group of marine and freshwater snails (gastropods).

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

Following my PhD, I took a postdoctoral research position for two years at the University of Konstanz in Germany. I studied the genomic evolution of diversity and evolutionary development of cichlid fish. After a non-academic fellowship, I returned to academia at UCLA (see below).

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

I never intended to continue working in academia permanently. In fact, following my PhD, and discovering that there were few career paths for a scientist except academia, I considered (and even halfheartedly applied for) tenure-track positions in academia. I had always had a keen interest in the applications of science for protecting the environment, and the AAAS Science & Technology Policy Fellowship was one the only ways to gain relevant policy experience and skills. So I applied for it and got it.

Following the fellowship, I applied for several jobs using contacts that I had gained—networking is the best way to generate a good and relevant job. I turned down a great opportunity outside of academia in order to build my own effort, which happened to be at a university.

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

Following the AAAS Fellowship, I took a position at the University of California,

Los Angeles (UCLA), Institute of the Environment. I had approached the director of this institute, and her successor, with an idea to build a science-policy interface organization that worked on climate change. While I was technically a researcher, and organized significant research grants as well as conducting my own research, this position was really focused on working to bridge the gap between science and society. From the base at UCLA, I also ran a large climate change program for the city, county, and agencies of Greater Los Angeles.

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

I am currently the Senior Director of Oceans at the XPRIZE Foundation (<http://www.xprize.org>). A colleague of mine had alerted me to the position and, feeling that I had reached the apogee of my effectiveness in the UCLA and Los Angeles positions, I decided to move on. This was a much more typical job search process, with résumés, interviews, and traditional references. And now I have an opportunity to engage scientists and engineers directly in innovating to solve critical challenges in our ocean.

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

My scientific background in the ocean is critical to me doing my job well. The credibility that is brought by my background goes a long way in engaging global oceanographic experts. But I would say the most important things I bring to my current position are deep critical thinking skills and a broad ability to learn. My specific scientific expertise, while helpful in communicating the relevance of the challenges we launch at XPRIZE (for example, to incentivize breakthrough pH sensors for understanding ocean acidification),



is typically less relevant than the skills I gained in speaking credibly about the science involved, identifying and engaging the relevant experts, and building and running a large project.

This last aspect is one that most PhDs fail to appreciate as a significant capacity: completing a PhD means running a significant project, and it includes skills as diverse as fundraising, strategic planning, project management, staffing, speaking and writing, and leadership. These skills continue to be the most valuable ones I gained. And I encourage all PhDs to reflect on their experiences and recognize just how skilled they are relative to the capacities that most jobs require.

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

My job is immensely satisfying, while also completely exhausting. It involves a tremendous amount of creativity and leadership, which are really rewarding. But like anything, there is also a significant amount of day-to-day management and minutiae. The best part of my job involves two things: (1) getting to be a part of world-changing innovations, things that can truly address global grand challenges; and (2) working with dedicated and creative colleagues that come from every background and expertise imaginable. The worst part of my job is

simply that it requires so much effort and it is terribly hard to stop working at it—there just isn't enough time in the day.

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

I have three recommendations. (1) Recognize that most scientists will not work in academia. Find the skills

that you excel at as well as the elements that keep you excited, and find work that enables you to both employ your skills and enjoy your work. (2) Capitalize on the unbelievable skill set that you have attained in your education. In reality, an education in science (and especially a PhD) is light-years beyond what most people will ever achieve, in both

knowledge and experience. Use this confidently. (3) Network, network, network. The best jobs, the best opportunities, and the best future all lie in the people you know and what they can do for you. Ask your friends, colleagues and mentors for help...they will give it. ☑

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

I earned my BA from Middlebury College in 1994, with a double major in geology and as an Independent Scholar in marine science. I then earned my MS in oceanography in 1998 from the University of Rhode Island Graduate School of Oceanography and a PhD in 2002 from Boston University in Earth science.

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

I was a postdoctoral fellow at Stanford University for 18 months before getting my first job at Joint Oceanographic Institutions (JOI, now the Consortium for Ocean Leadership) as the Assistant Director of Ocean Drilling Programs. Even when I started my PhD program, I knew I wanted a career outside of academia—I just didn't know what the options were at the time or how to apply the skills I learned as a researcher to other sectors. My PhD advisor was an amazing mentor who was very supportive of my goal to pursue a career outside of academia (especially since I was his first PhD student). I've never had a single regret about my choice not to pursue an academic career, despite other people questioning my decision. However, now that I have some interesting experiences working at the intersection of science and policy, I am starting to think about teaching a science or environmental policy course on the side.

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

Even though I knew I wanted a job outside of academia, there weren't very many resources to help me figure out how to do that. Thirteen years ago when I was looking for my first job, advice on how to be anything other than a professor was hard to come by, and available positions weren't advertised on the Internet, so it was much harder to find openings. I scoured the job opportunities section of AGU's *Eos* every week, hoping to see advertisements for positions outside of academia. I actually learned about my first job during a conversation over beers at AGU with the director of Ocean Drilling Programs at JOI. He was looking for an assistant director and asked me if I wanted to apply, which, of course, I did. While luck certainly played a role in helping me find out about my first position, the skills and networks I developed in each subsequent job made it easier to move forward in my career and identify next steps.

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

I have held many positions since finishing my PhD in 2002. In addition to my post-doc and the assistant director job at JOI, I've been Executive Program Associate at the Integrated Ocean Drilling Program-Management International, Program Officer in the Marine Microbiology Initiative at the Gordon and Betty Moore



Foundation, a Congressional Science Fellow with the US Senate Energy and Natural Resources Committee, and Energy and Water Advisor for the US Department of State. I also started my own consulting company to help new philanthropic organizations identify their visions, missions, and strategies for greatest impact.

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

I'm currently a Foreign Affairs Officer in the Bureau of Oceans and International Environmental and Scientific Affairs at the State Department. My path here may appear nonlinear, but each job I've held served as a stepping-stone to the next. I tend to think about my career by decade. I spent a little more than a decade in school, a little less than a decade supporting science as a program manager, and now I've embarked in what hopefully will be a decade or more in energy

and environmental policy. I earned a PhD so that I could work on big environmental challenges, but as I described earlier, it was hard for me to figure out how to do that right out of school. In the interim, I had a suite of really amazing jobs that helped me to develop a set of universally applicable skills like communicating to a wide range of audiences, leading teams, long-range strategic planning, negotiating, and time management under incredibly tight deadlines. These skills are applicable in any professional setting, and many graduate students already have started to develop them as part of their independent research. Even though I loved these jobs, I felt far removed from the decision-making process, so I spent some time conducting informational interviews with scientists working on policy in Washington, DC. Collectively, they all recommended that I apply for an American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellowship. So, that's what I did, and I was fortunate enough to be selected as the Geological Society of America/US Geological Survey (GSA/USGS) Congressional Fellow for 2011–2012 and then again as a Diplomacy, Security, and Development Fellow at the State Department from 2012 to 2014. One of my roles as a State Department fellow was to support Secretary Kerry's Our Ocean Conference by organizing the ocean acidification panel—one of the three issues the Secretary chose to highlight (the other two were sustainable fisheries and marine pollution). Having the opportunity to contribute to this event was a highlight of my career and led directly to my current position in the Office of Marine Conservation.

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

In each of the positions I've held, the knowledge I gained from my oceanographic education was invaluable. As you all know, oceanography is inherently multidisciplinary, which is advantageous when working across a range of sciences. During the 12 years I spent in school, I worked on a range of research that included marine geology, geophysics,

magnetics, atmospheric chemistry, geochemistry, and paleoceanography. This broad exposure helped me immensely while working on implementing the long-range science plan for the Integrated Ocean Drilling Program, which focused on the deep biosphere and the solid Earth—both areas outside of my own expertise—as well as environmental change (my bailiwick). Before I took my current job, I worked on energy policy for 3.5 years. Having a strong academic background as a geoscientist was a huge asset for working on issues ranging from hydraulic fracturing and the energy/water nexus to marine hydrokinetic energy and helium/critical minerals. In my current position, I work on marine policy issues, where my oceanographic education is directly relevant. My portfolio here is fairly broad—I work on fisheries issues in the Arctic and the South Pacific and the soon-to-be released first World Ocean Assessment, and I support the first US Science Envoy for the Ocean and promote Secretary Kerry's Our Ocean Conference initiatives. Strong science is a critical component that underpins and informs responsible decision making. It's important to have people with strong oceanographic backgrounds as part of the team of those making decisions and defining policies for our shared marine resources.

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

I've held a number of jobs in a number of different sectors (academic, nonprofit, philanthropic, consulting, and government), and my current position is one of my favorites. The work is incredibly interesting and challenging. I recently participated in my first multinational regional fisheries management organization meeting, and I came back very energized and excited about the work that foreign countries are doing together to conserve and manage our shared fisheries resources. The work that I contribute to has tangible outcomes with positive impacts for Americans and citizens of other countries, which is extremely satisfying. I work with people who are committed, passionate, and smart, which makes the job even better. When I first started at

the State Department, I was frustrated by the bureaucracy; however, once I learned how “the building” worked, I figured out how to be creative, entrepreneurial, and effective in getting things done while raising awareness of the issues I work on.

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

While not specific to a job search, the following are a couple of thoughts that guide both my personal and professional ethos.

- Take risks and make a few mistakes along the way—it helps you grow and figure out what you're really good at
- Open your mind to new experiences and stay curious
- Challenge yourself
- Observe others—model their strengths
- Take responsibility for your actions

As for job searching itself, here are a couple of tips that I've found helpful:

- **Network.** Find people who have jobs that you think you might want to have someday. Ask them to meet you for coffee (remember, my first job resulted from a conversation over beers). Talk to them about their career paths and ask them for advice and ideas about your next steps.
- **Find people who are good at getting jobs to help you with your resume and cover letter.** I had help from former colleagues and have also hired job coaches, depending on the situation. Every time I submit a job application, I refine my resume to make sure it is aligned with the job description. The same is true for cover letters. This step takes time, but it's critical in demonstrating that you are qualified for the position.
- **Get good at interviewing.** I can't emphasize how important this is. Practice to learn how to find the balance between demonstrating competence and confidence while being concise and without being arrogant. Think about your professional successes, failures, and lessons learned. Construct narratives around these experiences and draw on them when asked a question that requires an example. 📍