

CAREER PROFILES Options and Insights

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

I earned a BSc from the University of Victoria, Canada, in 1993, taking advantage of all the marine science courses I could get my hands on. Many years later, I went back to graduate school at Memorial University of Newfoundland, Canada, and completed a PhD in conservation biology in 2002. My dissertation focused on the impacts of chronic marine oil pollution on seabird populations in the eastern Canadian Arctic. Hundreds of oiled seabirds had been washing ashore on beaches in Newfoundland for decades, and no one was quite sure how big a problem this was or how to mitigate it. Through a combination of statistics, beached bird surveys, studying carcass beach persistence, drift block experiments, and a whole bunch of spatial and population modeling, I found the answer: up to 300,000 birds were being killed a year due to illegal dumping of bilge oil from ships transiting the great circle route from Europe to North America. By engaging with several Canadian federal agencies and nongovernmental organizations (NGOs), we finally managed to change Canadian environmental legislation to address this issue. The number of dead oiled birds in this area has been declining since.

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

I did stay in academia for almost three years. I went from Newfoundland to do a postdoc at the University of Washington in Seattle, working with Julia Parrish. We focused on the strange nexus of internationally protected seabirds being shot at hydroelectric power dams along the

Columbia River as part of a predator control program designed to safeguard federally protected salmon that were being raised in hatcheries.

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

My PhD and my postdoc exposed me to a breadth of professionals in many fields outside academia, and the topics I focused on nurtured my interest in studying large-scale marine ecosystem dynamics. I did not want to focus on just one issue. About two years into my postdoc, I started considering my next steps, always thinking I would go back to the tropics where I had spent a significant amount of time after my undergraduate degree. Open to anything fun and interesting anywhere on the globe—but that would pay the bills because I was married and had three kids by then—my search pattern was pretty wide. Then one day, I believe through the electronic university job postings, I came across an ad for the North Pacific Research Board (NPRB). They were looking for someone to help build out a marine science funding program in Alaska focused on marine ecosystem understanding and sustainable fisheries management. I jumped at it.

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

Having always had many different interests and loving to travel, I took some time after my undergraduate degree to figure out if I wanted to go to grad school at all. So, I worked in a variety of marine programs: studies of humpbacks off Cape Cod for a summer, seabirds in the North Sea for a few months, and sharks in the



Bahamas for six months, and then as a dive instructor in the Galápagos Islands for a year. In between, I needed to make a more substantial living and worked as a cab driver and a bar keeper on night trains throughout Europe. Then, during grad school, having started a family a few years prior and not being able to live on a grad student stipend, I did a lot of consulting work on the side, mostly for the Canadian government on issues related to my PhD studies. I also did some conservation work for NGOs and translations from different languages into English for various institutions. While working for NPRB, I began to take time off to work as a lecturer and naturalist on ships in the Antarctic. After eight years at NPRB, I was considering going back to academia or doing something on my own when I was approached by Stantec, a global environmental and engineering consulting firm. Eventually, they convinced me to join them, and that is still where I am now.

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

I currently lead the marine sciences for Stantec in the United States and help spearhead marine and coastal projects around the world. In this capacity, I contribute to the technical quality of the marine-related work we do; design marine research, monitoring, and assessment studies; work

on climate change drivers and impacts; and support our internal innovation office in designing new tools and implementing new ideas and technologies to help solve problems related to coastal and marine ecosystems and climate change around the world. Everything is a team effort, and I love working with people across the globe from a plethora of disciplines in science, engineering, and architecture. Stantec is originally a Canadian firm, and I got hired because they wanted someone who could think broadly but also knew the players across North America, initially in Canada in particular, and I was adept at writing proposals. How I ended up here was not a straight line by any means, but reflecting back, the varied interests and opportunities I pursued, the focus on applied science, reviewing hundreds of proposals every year, and the curiosity to experience all the different sectors of society studying the ocean prepared me perfectly for what I do now.

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

To think creatively, critically, and in multiple dimensions. The ability to take a lot of information and distill it down to the pertinent issues, then design a robust scientific program to address the question at hand. Throughout my academic career, and in between, I also had the opportunity to work with a lot of different people from communities, industry, and government. All those skills and that exposure is critical in what I do today, where I work on half a dozen projects at any one time, creating solutions with people from all walks all life, all the while maintaining scientific quality and integrity.

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?

Proposal writing would have been good, although eventually I got the hang of it. More GIS skills and learning how to do more sophisticated spatial analyses would

have been helpful. I learned to program in SAS and MATLAB, but R would have been more useful. Business management would have come in handy when I first started at this large consulting firm to better understand how this world works, and a degree in communication—you figure it out eventually, but nothing is more important than being able to communicate clearly and succinctly to a wide variety of audiences. Oh, and fluvial geomorphology, just because it's amazing how it makes landscapes come to life.

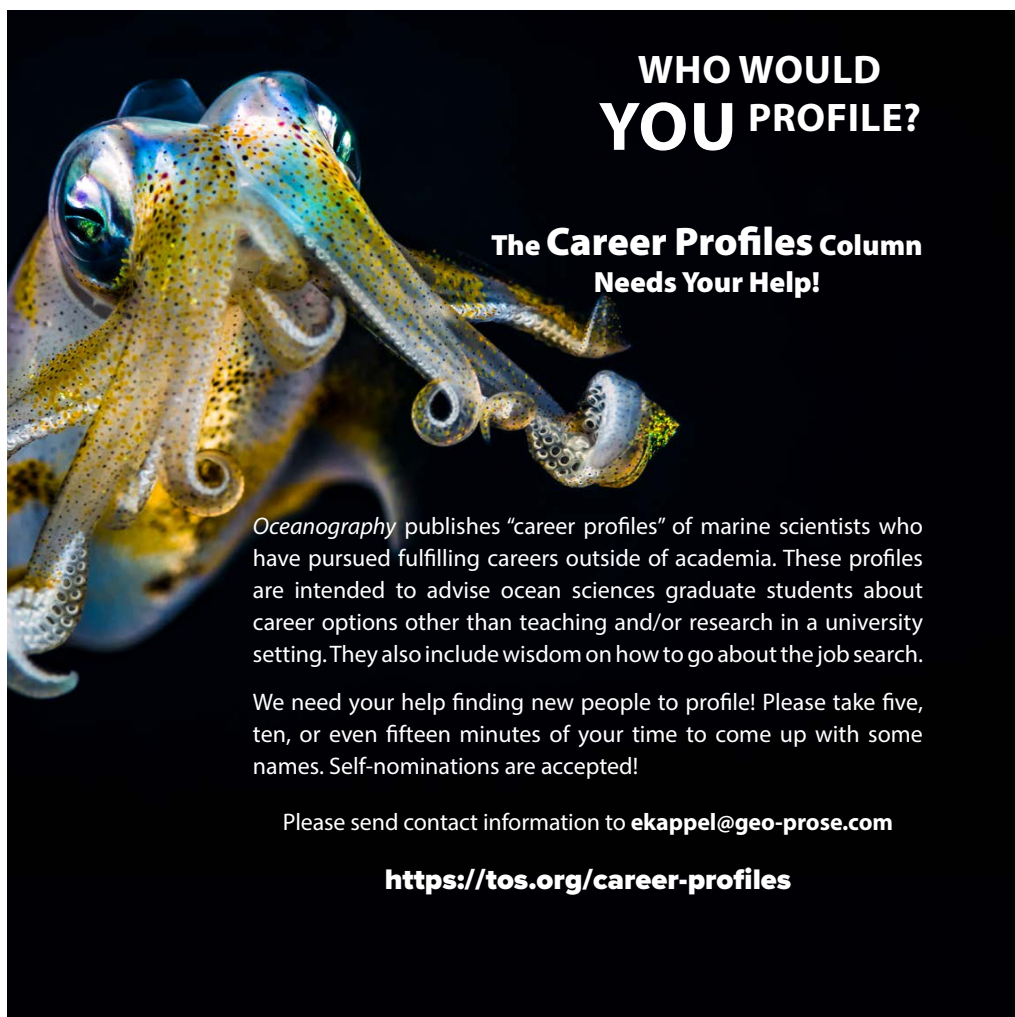
Is the job satisfying? What aspects of the job do you like best/least?

I love what I do because of the global scope of my job and because the opportunity to be involved in many different projects with many different people speaks to my many interests and the system thinking my mind likes to go to. Even within this large structure, I get to pursue my passions in marine research and climate change, and participate in national panels and committees on a variety of issues.

I don't enjoy the administrative part, but fortunately I have many colleagues who do, so it is kept at a reasonable minimum.

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

Follow your passion and keep an open mind to different opportunities that come your way, even if they are not what you expected to be doing next. Few careers develop on a straight path, but when you get there, it all falls into place. If it seems interesting and fun, go for it. I interview many people for work, and their passion for what they do is half the ticket; you can't fake that. Talk to everyone, and don't be afraid to use those connections to get in the door. Sometimes getting noticed for that first look at your CV is all you need, and then you can take it from there. You might be nervous in an interview, but it's best to just be yourself, and don't hide your passion. You never know when one opportunity or conversation will lead to the next one that will help land your dream job. 🌐



WHO WOULD YOU PROFILE?

The Career Profiles Column Needs Your Help!

Oceanography publishes "career profiles" of marine scientists who have pursued fulfilling careers outside of academia. These profiles are intended to advise ocean sciences graduate students about career options other than teaching and/or research in a university setting. They also include wisdom on how to go about the job search.

We need your help finding new people to profile! Please take five, ten, or even fifteen minutes of your time to come up with some names. Self-nominations are accepted!

Please send contact information to ekappel@geo-prose.com

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