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CAREER PROFILES Options and Insights

SHELBY WALKER | Director, Oregon Sea Grant, shelby.walker@oregonstate.edu

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

I completed a PhD in 2003 at the Virginia Institute of Marine Science, where I focused on organic contaminant geochemistry. Essentially, I looked at the fate and distribution of contaminants in urban estuaries. I was a Sea Grant Knauss Fellow at the National Science Foundation toward the end of my dissertation.

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

Following graduate school, I competed for and received a National Research Council Research Associateship that places postdocs in government labs, among others. I worked with the Naval Research Laboratory (NRL) Chemistry Division, based at the Washington, DC, facility. This postdoc was about as close back to academia that I got until I took my current Sea Grant position.

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

It's safe to say that I wouldn't be where I am now without the Sea Grant Knauss Fellowship. It opened doors that I didn't even know existed. During my second postdoc year, I had begun to realize that a purely research endeavor wasn't really for me and was thinking about other opportunities. I had remained friends with my fellowship mentor, and when she alerted me about an interagency research planning effort, I seized the opportunity. I was pleased to become the project manager for the Ocean Research Priorities Plan and Implementation Strategy (<https://www.whitehouse.gov/sites/default/files/microsites/ostp/nstc-orppis.pdf>), a decadal plan for ocean research in the United States, published in January 2007 and intended to reflect national

priorities and societal needs. A team effort, it was created by the 25 federal agencies that comprise the Joint Subcommittee on Ocean Science and Technology.

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

I've had several jobs since completing my PhD, each different from one another and all very challenging. After the *Ocean Research Priorities Plan and Implementation Strategy* was published, I returned to the National Science Foundation as a program officer, responsible for management and oversight of the planning and development for the \$400 million Ocean Observatories Initiative (OOI; <http://oceanobservatories.org>). OOI was a project 20 years in the making, and it was my responsibility to help move it through final planning and review stages for approval by NSF's National Science Board. Once OOI was approved and moving into construction, it was again time for me to move on. This time, I went to the National Oceanic and Atmospheric Administration, where I applied my strategic planning background (gained from my work on the *Ocean Research Priorities Plan*) in the Office of Policy, Planning and Evaluation in the Oceanic and Atmospheric Research (OAR) Line Office. While my tasks initially focused on large-scale strategic planning in the agency context, less than a year into my position, the Deepwater Horizon event occurred in the Gulf of Mexico. I was involved in the response to the disaster and subsequent planning for restoration and development of the science needed to address some of the longer term issues facing the Gulf, which occupied much of my time until my ultimate departure from NOAA.



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

I am currently the Director of Oregon Sea Grant. After 12 years working in Washington, DC, it was time for a different pace and venue. I also wanted to get a bit closer to the science and its application in solving problems. The Sea Grant mission combines research, education, extension, and communications to address coastal and marine issues—essentially first identifying then understanding the issues that face our coastal ecosystems and communities and subsequently bringing to bear the science required to help inform decisions about them.

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

While I've acquired most of the skills that I use on a day-to-day basis since my time in graduate school, I did get a great education in critical thinking and creative solutions. Fieldwork often requires adjustments on the fly without a lot of resources, and the ability to anticipate a problem and come up with a solution is a skill that I've taken with me from job to job.

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

My job is very satisfying. I get to work with people who are immensely passionate about what they do, from extension agents who live and work in communities to researchers who bring their scientific curiosity to bear in examining pressing issues. It's fun being back in an academic environment, which is very different from

the federal government. There's more latitude when it comes to collaboration, supporting new ideas, and innovation.

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

I would encourage new grads to think broadly. The academic path is the right one for a lot of people, but even that career is evolving. Research funding agencies

are focusing more and more on the utility of science, which wasn't (isn't) always something taught or learned in graduate school. Federal service was a great path for me for a long time, whether it was "official" at NOAA or just connected through my work with the federal agencies on the priorities plan. Staying curious and open-minded about possibilities is key. 📷

CYNTHIA J. DECKER | Executive Director, NOAA Science Advisory Board, and Acting Director, NOAA Cooperative Institute Program Office, cynthia.decker@noaa.gov

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

I earned a BA in zoology from Miami University (Ohio) in 1980, an MS in zoology from Louisiana State University in 1983, and a PhD in coastal oceanography from Stony Brook University in 1991.

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

I chose not to stay in academia. When there was a lull in funding from my advisor near the end of my PhD, I responded to a small ad for a student to work for the director in marine sciences on a project to determine the feasibility of developing a Hudson River management plan. Taking that job for one semester was the key to my entire career. It gave me the opportunity to interview individuals who had some say in the management of people and natural resources in the river's watershed from Albany down to New York Harbor. I was fascinated to discover the role that science has (or does not have) in influencing the decisions that affect marine and freshwater wildlife. Although it was another couple of years before I finished the PhD, I had decided the academic life was not for me.

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

For the first step in my career, I applied for a Dean John A. Knauss Sea Grant Fellowship in Marine Policy in

Washington, DC, which places recent graduates in government offices for a year. This fellowship gives recent grads the chance to find out if there is something else to do besides research (it can also convince one that scientific research is exactly the right career and results in people going back into the lab and field). I was placed in the Office of Naval Research (ONR) where I helped start a new program in marine environmental quality and environmentally sound ships. There is nothing better than having the chance to develop a new research program that has committed funds. I worked with some of the best scientists in the country as well as some fantastic Navy program managers.

After ONR, I took a position with the New York State Department of Environmental Conservation (DEC) as the state coordinator for an Environmental Protection Agency national estuary program. The initial goal was to write a comprehensive conservation and management plan for the Peconic Estuary. It was a great opportunity to dig into the intersection of research results and natural resource management. I was dealing with town and village planning departments, county agencies, and citizen groups, all with specific interests. People cared about single osprey nests, surviving alewife runs on individual creeks, and sea turtles stranding on one beach. I navigated between the competing interests



of the state, local, and federal agencies; scientists and technical experts; and the concerned, involved public. I could never assume people would understand the scientific information or that they would embrace it for making decisions. We developed the plan, but it took four years and the efforts of a lot of people from many organizations. Imagine spending four years writing a research proposal with a group that has competing ideas about the purpose of the research. There's a big party when the proposal is finally finished, but that's the just the beginning. Now the group must figure out how it will actually conduct all the proposed activities while ensuring all the partners have the money needed and feel vested in the research and the results.

I loved the DEC job, but it had many challenges. Thus, when the Consortium for Oceanographic Research and Education (CORE) in Washington, DC,

came calling, I was ready to listen. At CORE, I was the Executive Director for the National Oceanographic Partnership Program (NOPP) and the Census of Marine Life (CoML) program. I was again involved with exciting, interesting programs but now national and international in scope. Each program involved starting up and running new research programs with multiple funding sources, and each required great organizational skills. I worked with teams of individuals with competing as well as common interests that had to be negotiated. The programs opened up vast connections in the scientific, federal government, and international communities that continue to be useful to this day.

From CORE, I was invited to work at the Office of the Oceanographer of the Navy as the head of its international and interagency liaison team. This is the policy office for the operational part of the Navy that is in charge of hydrographic surveys, weather forecasting, and ocean modeling. My PhD was invaluable in providing skills and credibility with the Navy community. Plus, I was able to continue my international activities by serving on US delegations to the Intergovernmental Oceanographic Commission and the UN Informal Consultative Process on the Law of the Sea—dealing not just with government bureaucracy but with *international* government bureaucracy!

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

I now serve as Executive Director of the NOAA Science Advisory Board, a federal advisory committee that provides input to the NOAA Administrator on anything in the agency having to do with science, research and development, transition to operations, and science education. This job brings unparalleled opportunities to work with individuals who are world-class experts in numerous scientific and educational fields, and it allows me to interact with NOAA scientists who work on everything from space weather to deep ocean exploration.

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

My graduate degrees provide me with the ability to quickly take in information and learn what I need for Science Advisory Board purposes. Organizational skills are critical as well as the ability to work with very high-level people, both subject-matter experts and political appointees. Much of my current job is about developing standard processes and anticipating issues that might arise for the Science Advisory Board or for NOAA.

Recently, I was asked to take on two new positions in NOAA. I left the Science Advisory Board job to serve as the Acting Director of the Cooperative Institute Program Office. There are 16 CIs in NOAA, and this office provides oversight for their establishment, implementation, administration, and review. My experience in working with NOAA programs and scientists and external partners qualified me to address this new challenge. I was also asked to serve as the first NOAA Scientific Integrity Officer. This position was developed to support NOAA's scientific integrity policy, which resulted from an Office of Science and Technology Policy memo. Again, my PhD and experience working with scientists and agency leadership provided me with an opportunity to develop a new program. The experience with the scientific community from my PhD work and continuing through various program management positions to working with NOAA scientists enables me to understand the nuances of scientific integrity that can make it such a delicate topic in the government.

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

All of the jobs I've had resulted from connections made doing other jobs and from having a PhD. I had to go through a formal application and interview process for most of them, but my chances of being offered the position were greatly enhanced both by having a PhD and because I knew the people involved in

the interview. Each of these jobs has been interesting, challenging, and exciting, and has brought me in contact with new communities. And you can find science management jobs anywhere—in government, in nonprofit organizations of all kinds, in private industry. Sometimes, they are in surprising places, so you must stay alert to the options. Part-time hobbies can turn into full-time jobs, so always keep an open mind. The skills learned in graduate school transfer to any job—the advanced degree, no matter what it is in, is a huge asset. As with scientific research, be prepared for careers “outside the box” and explore all the possibilities. 🌐

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