

THE OFFICIAL MAGAZINE OF THE OCEANOGRAPHY SOCIETY

# Oceanography

#### CITATION

Career profiles—Options and insights. 2012. *Oceanography* 25(4):83–86.

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# CAREER PROFILES **Options and Insights**

ANN K. MASSE | Safety, Health, Environmental and Sustainability Leader, DuPont (ann.k.masse@dupont.com)

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

I have an undergraduate degree in Environmental Studies (BA, 1981) from St. Michael's College in Colchester, Vermont, and a graduate degree in Physical Oceanography (PhD, 1988) from the University of Delaware.

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

I completed a postdoctoral position at the Canada Centre for Inland Waters in Burlington, Ontario. It was a great experience to work with the Canadian researchers and to apply what I had learned about the ocean to the Great Lakes.

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

I have been fortunate to have had many jobs, and I have probably used just about every approach to job hunting. My best success in finding work was through networking, becoming actively involved in community and professional activities. I also try to learn as much as I can about the company or organization that I am interested in—not only determining what they do and how successful they are, but also examining the corporate culture and whether it will be a good fit for me. Finding the right job is about finding work you love to do in an environment where you can be successful.

DuPont recruited me because I was

involved in the community, the local university, and an environmental association. The company needed someone to help navigate the development of a challenging environmental program and to work with the local government and academic communities.

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

Between undergraduate and graduate school, I worked as a contracted auditor for the Environmental Protection Agency. Through these assignments, I traveled the country and learned about many different industries, such as steel mills, power plants, mines, food producers, and automobile manufacturing. These experiences gave me a solid grounding in how business works in many different settings. I continue to draw on those experiences today. After my postdoctoral appointment, I worked for a brief period in environmental consulting—writing proposals for environmental assessments in many areas of the world. I was also given the opportunity to start looking at climate change to help the company find its niche as the science was developing.

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

I am currently the global Safety, Health, Environmental and Sustainability Leader



for the chemicals division of DuPont. I joined DuPont at a plant site to help work through some local environmental challenges. Over the years, my job scope grew from the site Environmental Manager to overall site Safety, Health, and Environmental Manager. I changed locations—working in New York, Louisiana, and New Jersey. About 10 years ago, I joined the corporate offices to work on special projects—mostly in environmental and sustainability issues, and six years ago I was appointed to my current assignment.

At a recent career day, I encouraged new employees to be willing to take on a special project, to do something that is difficult or stretches them into areas where they have to learn new skills and work with new people. I told them that in doing so, they would grow both personally and professionally, they would be viewed as positive contributors, and, as new assignments become available, leaders will be more likely to take chances on them.


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

I was fortunate to have Richard Garvine as my advisor in graduate school. He was a disciplined thinker whose rich life involved pursuing diverse interests. He taught oceanography in a way that honed a student's scientific approach to focus on the essential elements of a problem. This type of thinking has served me well at work—helping me to quickly sort out the noise and focus on the essence of the issue at hand. He also insisted that we write well—many a chapter in my dissertation was covered with his red ink! Graduate school started me on the path to becoming a stronger public speaker. Communicating well—both in writing and verbally—are critical to being effective in my current assignment.

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

Hands down, I love my job. I have been able to travel to many parts of the world to see how DuPont operates in different countries. I work with government agencies, community organizations, and other industry groups on a variety of issues. A large part of what I do at DuPont is working on improving safety, health, and the environment. There is satisfaction in knowing that you have helped others be safer and that your work is advancing environmental stewardship. This is a challenging time as climate change and resource constraints become more and more important globally. I enjoy working on these tough challenges, helping the company assess new processes and products to reduce its environmental footprint and provide added value to customers.

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

Be targeted in your approach to finding a job to make sure you are the best candidate and the job is a good fit for you. Reach out proactively to the university or organization you may be interested in and then follow up. Persistence is important in a competitive job market. Be active in professional societies or community organizations and continue to work on improving your communications skills. 

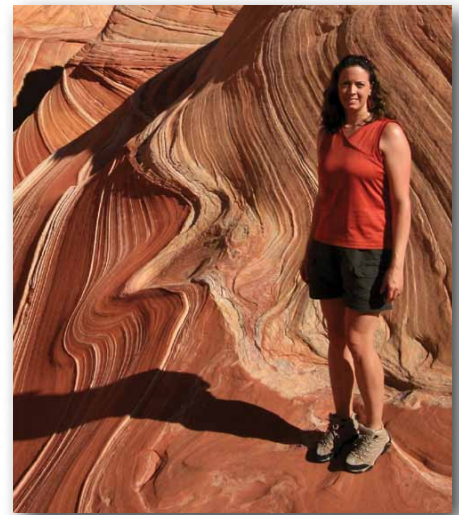
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**Degree: When, where, what, and what in?**

I earned a Bachelor of Arts in geology from Smith College in 1995, and a Master of Science (1997) and PhD (2003) in geological oceanography from the University of Delaware. My research examined the influence of the nearshore geologic framework on spatial and temporal variability in shoreline change rates along Delaware's Atlantic Coast. After working for several years, I became professionally registered as a Certified Floodplain Manager.

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

When I was roughly half-way through my PhD field work, I left graduate school for the job I thought I wanted upon completion of my studies. In hindsight, while that was the best decision at the time and I had a very understanding and supportive employer, it was incredibly difficult to complete my research and write my dissertation while working full time. It's not a path I recommend.



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

Every position I've held originated from a colleague's tip or direct reference to an employer. While advertised jobs are

worth tracking (even when you're happily ensconced somewhere), I've found that employers often already have a candidate in mind, and I'm too late to the game. (If the job announcement is only open for a couple of weeks, this is almost certainly the case.) In my experience, the key to getting ahead of the curve is having a broad network of professional contacts, people who are in position to let you know if relevant opportunities open up or, in some cases, to open a job for you.

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

As of my current position, I've had more jobs than years spent in graduate school—and for someone in science policy, this has been a very good thing.

My first "job" was really a fellowship. Between my MS and PhD, I spent a year as a Knauss Sea Grant Marine Policy Fellow, employed in the Mitigation Directorate at the Federal Emergency Management Agency (FEMA) in Washington, DC. I credit that position with showing me the range of potential roles for scientists in the public sector, and providing me with the nucleus of the professional network that still serves me today.

After (almost) finishing my PhD, I took a job as a senior coastal scientist doing floodplain mapping with an engineering firm, PBS&J (now part of Atkins Global). After three years, I was hired as a principal geologist at URS Corporation, where I led post-disaster flood mapping and related technical assistance to Gulf Coast communities on behalf of FEMA after the 2004 and 2005 hurricanes. It was very rewarding but very exhausting work.

Needing a career shift, I left consulting

to serve as a Congressional Science Fellow in the office of Senator Bill Nelson of Florida. This position was sponsored jointly by the Geological Society of America and the US Geological Survey as part of the Science & Technology Fellows Program of the American Association for the Advancement of Science. This position helped me to better understand how our legislative and executive branches truly function (and why they don't sometimes), and to see for myself how and where science factors into an elected official's decision making. The latter is a very individualized and personal process—just as "the public" is not some monolithic body, neither are elected officials. For someone in science policy, this was a critical lesson.

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

I am a coastal hazards specialist in the Coastal Geospatial Services division of the National Oceanic and Atmospheric Administration's (NOAA's) Coastal Services Center. My job is an interesting mix of science and policy. My group works with state and local managers to develop geospatial data and tools that support climate- and hazards-related planning and decision making. I also help represent NOAA on multiple federal interagency working groups to coordinate coastal hazards policies and risk-reduction activities.

As noted above, my path to NOAA was a complicated one, but that was by design. Knowing early in grad school that I wanted to work at the nexus of science and society, I knew I needed direct experiences that would help me understand the varying stakeholder perspectives on environmental and hazards-related

issues. I draw from those experiences daily at NOAA, where I work on teams that craft policies, programs, or new products for stakeholders to use in solving their complex coastal challenges.

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

In grad school, I gained a deep appreciation for the interdisciplinary nature of oceanography, particularly in the immediate coastal zone. Similarly, I gained an appreciation of coastal engineering, and the differences between how engineers and geoscientists conceptualize and seek to understand the coastal system. Having such a broad view of the complex and interdependent physical processes governing the coastal zone actually made it easier for me to make sense of the similarly complex "people" side of things. In turn, that has enabled me to better anticipate the needs of diverse (and sometimes opposing) stakeholders in my work at NOAA.

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

I love my job—in many ways, I feel like I've finally found the right spot where I can use my accumulated scientific and policy expertise in service to society. I absolutely adore and respect my organization and the infectious enthusiasm and dedication of the people I work with. I sometimes get frustrated with the bureaucracy and pace of action, issues that are inescapable when you work in the federal government. It's especially vexing when working across agencies and with lawmakers. In the end, though, I think these challenges make even the small successes all the sweeter.



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

Devote significant time and energy to the care and feeding of your professional network—both peers and senior-level mentors. My network has helped me in every career move I've made or contemplated. A really critical aspect of networking is to give as much as you get—in other words, be on the lookout

for opportunities for your colleagues, and provide support when they need it. Don't be that guy or gal who is only in touch when they need something.

Also, recognize that the days of working in one job until retirement are gone, so you need to maintain and enhance your skills and abilities on an ongoing basis. As you consider a prospective position, think critically about what

knowledge or skills you will gain from it. Will it bring you closer to achieving your career objectives, or is it just a job that will help pay the bills? Both choices are valid, but for the latter, you'll need to manage expectations about how happy or fulfilled you'll be there. I learned that lesson the hard way. ☹️

[www.tos.org/awards\\_honors/jerlov\\_award.html](http://www.tos.org/awards_honors/jerlov_award.html)



## The Nils Gunnar Jerlov Award

Awarded in recognition of contributions made to the advancement of our knowledge of the nature and consequences of light in the ocean.



(from left to right) Curt Davis, Joan Cleveland, and Ken Carder after the Jerlov Award Ceremony at Ocean Optics XXI. Photo credit: Weilin Hou

### 2012 JERLOV AWARD: KENDALL L. CARDER

On October 11, 2012, Kendall L. Carder was honored as the 2012 recipient of the Jerlov Award during a ceremony at the Ocean Optics XXI Conference in Glasgow, Scotland.

In addition to receiving the Jerlov Award medal and gold lapel pin, Ken received a certificate from The Oceanography Society citing his pioneering work on in situ optical measurements of particles and dissolved matter, and the development of underwater imaging systems, including holographic systems for measuring particle dynamics; his many contributions to ocean color remote sensing and hyperspectral imaging; and his teaching and mentoring of students and post-doctoral fellows both at the University of South Florida and in the ocean optics classes with Mary Jane Perry.

This is the seventh presentation of the Jerlov Award, which is supported by The Oceanography Society, the National Aeronautics and Space Administration, and the Office of Naval Research. More information about the Jerlov Award can be viewed at: [http://tos.org/awards\\_honors/jerlov\\_award.html](http://tos.org/awards_honors/jerlov_award.html).