Sarah Cooley

Director of Climate Science at Ocean Conservatory



What is your current occupation?

I'm the director of climate science at Ocean Conservancy, which is an environmental non-profit organization based in the United States. My job is to ensure that the latest science on climate impacts to ocean systems, and ocean-based climate solutions, is used in decision making about the ocean. This helps our advocacy focus in on measures that will really get at the root of problems, instead of providing temporary or incomplete solutions.

What is your educational background?

I have a Ph.D. in Marine Science, and a B.S. in chemistry with a biochemistry concentration. I've also had extensive media and communications training, starting in graduate school and continuing to today with occasional refreshers.

A key message for students is that the geoscience workforce is dynamic, and boundaries between sectors and occupations are fluid. How has this been true in your career?

One of the hallmarks of my career is that I've never wanted to close a lot of doors on different topics, and I've wound up having a very interdisciplinary skill set as a result. In college, I split my time evenly between chemistry classes and writing-intensive humanities classes focused on literature, anthropology, and culture. In graduate school, I took science writing courses to complement my specialization in marine science and oceanography. After graduate school, I worked as a freelance science and technical writer, then a technical editor for American Meteorological Society Journals. Then, I moved back to a research institution (Woods Hole

Oceanographic Institution) to begin a science-communication heavy postdoctoral project that took advantage of my Ph.D. in ocean carbon cycling. I stayed there as a researcher for about seven years. While I was there, I occupied a mix of roles: I led interdisciplinary scientific research on ocean acidification while also leading science communication and science community development projects. Through those activities, I became an issue expert on ocean acidification, I learned how to talk to many audiences about highly complex technical topics, and I began to learn about U.S. federal science policy. When I moved to work at an environmental NGO (Ocean Conservancy), I got on-the-job training in how policy advocacy worked. I learned how to help support science through policies about funding and coordination, and how to use the latest science to improve policies about resource management and federal activities. In every role though, I've used my broad skill set to make sure science is being shared clearly and usefully to many audiences.

Where do you see your sector moving in future years? How would you advise students to prepare to be competitive job applicants and successful employees?

As climate change advances, it will cause more widespread and severe climate impacts, and people at every level will be adapting at the same time. Future conservation professionals will need to understand climate impacts, equitable human development needs, and the workings of natural resource policy to craft appropriate solutions. Increasingly, policy development and implementation must ensure that the risks and benefits of climate impacts and climate solutions are evenly distributed among different groups of people. Strong communication skills are also a vital asset in conservation and policy work; translating and connecting between issue experts, decision makers, and resource users is greatly needed but not always done well. And, having leadership skills will help conservation professionals identify opportunities to make change, lead others to collaborate on meaningful projects, and successfully complete them under changing circumstances.

What is the role of networking in your sector? Do you have advice for a student who is just beginning to build their network? What is the best way for students to get their foot in the door?

In my sector it's important to have a broad network. I know a large pool of climate science experts who specialize in various topics from global earth systems to individual human behaviors. I also need to know peers at other conservation organizations. Often, environmental NGOs team up in coalitions to help each other reach various goals. Over time, I have also developed a large network of colleagues who support science coordination, funding, and communication.

My own network grew from going on fieldwork assignments with scientists from other institutions; from organizing science meetings and consensus documents; from offering to help more senior colleagues prepare for big events like presentations or even government testimony; from serving on proposal review panels; from saying yes to invited talks, panels, and workshops;

and from doing things that felt scary, like joining writing teams for major reports. Twitter has also helped me grow my network and help me get acquainted with some great experts that I might not have connected with much otherwise.

Networks build over time, so it's natural to start small. I recommend getting involved in as many group activities early in your career as your energy and your calendar can tolerate, and then meaningfully reconnecting now and then with people you meet in ways that feel authentic to you. Ask senior colleagues for help and introductions, especially at professional conferences. We've all been there, and everyone you know will be glad to introduce you to a handful of people. Repeat this a few times, and before you know it, you'll have an exponentially growing network.

What does a "typical" day of work look like for you?

My typical work days include an average of ~3-4 hours of meetings with colleagues inside and outside my organization to move projects forward and share progress updates. There's always catching up with email and important reading, which takes at least an hour or two a day. The rest of my time I try to reserve for working on projects themselves. I write a lot of synthetic reports and papers that help transform peer reviewed science into formats that other audiences can understand and apply. For example, I co-led a chapter in the latest IPCC Working Group II report, which helps inform international climate policymakers. I'm also contributing to a chapter in the 5th U.S. National Climate Assessment, which will assess the state of climate impacts and opportunities to act, to inform local, state, and national decision makers, businesses, and resource managers. Projects like this usually require longer periods of deep focus, which can be hard to preserve. So, some days I'll block off a big "work block" where my email and phone are off so I can concentrate on a project.

What is the best part of your job?

I really love working at a nonprofit organization where I can collaborate with people whose training and thought process is very different from my own. I bring a very natural-science-informed point of view to the work we do, but it's so refreshing to have someone whose expertise is in human nature or communications to challenge my thinking. In addition to working with so many different types of thinkers, I also really love bringing projects to completion and knowing what part I played in making specific changes in the world.

Do you have any other comments or advice for students looking to enter your sector of the geoscience workforce?

A broad-based education that still gives you some very specialized expertise areas is helpful, as is an always curious nature. Working in an environmental nonprofit as a scientist requires thinking about science issues that have direct applications to current events. It's important to be able to admit when you don't know the answer, but to be able to figure out where to find it. Creativity in identifying gaps or opportunities where problems or systems meet up with each other helps advance the work, and it helps keep your work feeling fresh and vital.

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