

Emily Osborne

Research Scientist at NOAA's Atlantic Oceanographic and Meteorological Laboratory



What is your current occupation?

I am a federal research scientist working at the [National Oceanic and Atmospheric Administration](#)'s (NOAA) [Atlantic Oceanographic and Meteorological Laboratory](#) (AOML) in Miami, Florida. I work within AOML's Ocean Chemistry and Ecosystems Division as a [marine biogeochemist](#) using a combination of paleoceanographic archives and modern ocean observations to study natural and human-induced ocean changes.

What is your educational background?

I have an undergraduate degree in Geology from the College of Charleston and a PhD in Marine Science from the University of South Carolina. Following the completion of my dissertation, I moved to Washington, DC where I was a fellow [NOAA's Sea Grant Knauss Fellowship Program](#).

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?

Already as an early career researcher, I have encountered several sector boundaries that have shaped my career and experience in the geosciences. Upon completing my PhD, I moved out of a lab-based existence into a management and policy-oriented position with the US Government. By stepping away from academia I was able to develop an entirely different set of skills and gain a more end-to-end understanding of science in support of decision making. I also was able to

continue publishing while also channeling my energy towards voicing the importance of ocean science and recent climate science results. Following my four years in science management, I transitioned into a federal research position, which my experience in federal management made me uniquely suited for. I now work as the Principal Investigator for a modern oceanography program, despite my training as a paleoceanographer. I should also mention that geographically speaking, my career choices have led me to conduct work off the US West Coast, in the Pacific Arctic, and now in the Gulf of Mexico. Remaining flexible and accepting new challenges outside of my area of expertise and comfort zone have made me a better-rounded scientist. While these transitions come with unique challenges, reinventing myself and proving I can be successful across multiple sectors has made grow and build confidence.

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?

Aside from demonstrating a solid publication record... Within the federal government we're seeing an important push towards promoting equity and workforce diversity. Dedicating time to STEM education and JEDI efforts means you're contributing positive change to our geoscience community and also builds out your resume to show future employers that you're dedicated to seeing better representation within their organization.

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?

I would say that networking is a big part of being a successful and collaborative researcher. Aim to build your network not only in your area of expertise but across disciplines so you're prepared to tackle new and emerging technical approaches and science questions. As a student, join organizations, attend early career events to network with your peers, and don't be afraid of cold emailing someone you want to work with.

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

A typical day for me includes (1) communicating over email and virtual meetings with federal and academic partners across the US and the world, (2) reading and learning new science while working on writing papers and/or funding proposals and (3) working with students and postdocs who partner with me on my research.

What is the best part of your job?

The best part of my job is knowing that I am dedicating my time towards a doing science that can inform decision makers regarding climate and the inherent opportunity to make the Earth a better place for all.

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

Find good mentors and support systems and pay it forward by serving as a mentor for others. We all need support!

Connect:

<https://www.aoml.noaa.gov/people/emily-osborne/>
<https://www.linkedin.com/in/emily-osborne-23ba2754/>

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