

Dena Smith-Nufio

Program Director for the Sedimentary Geology and Paleobiology (SGP) program
in the Directorate for Geosciences at the National Science Foundation



What is your current occupation?

I am a Program Director for the Sedimentary Geology and Paleobiology (SGP) program in the Directorate for Geosciences at the National Science Foundation. In addition to working with SGP program I work with other program officers from across the agency to support US research and researchers. While at NSF, I also have had the opportunity to serve as Acting Section Head of Disciplinary Programs and Acting Division Director of Earth Sciences.

What is your educational background?

I earned my B.A. in Biology and Environmental Studies from the University of California at Santa Cruz and my Ph.D. in Geosciences with a minor in Entomology from the University of Arizona. After my PhD, I spent the next 16 years as the Curator of Invertebrate Paleontology at the CU Museum of Natural History and as a faculty member in the Department of Geological Sciences at the University of Colorado, in Boulder.

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?

I have always been interested in so many things and I have tried to stay open to opportunities and explore options. For example, I started my undergraduate career as an art major. I was not far from completing my degree when I got an opportunity to do an internship at the Smithsonian's National Museum of Natural History. I was able to work with some wonderful paleobiologists and after spending time in the field with them, I went back to school and changed my major.

Later in my career, when I was a faculty member, I was able to serve as the Executive Director of a scientific coordinating office. That position helped me to re-connect with broader, community-minded goals and allowed me to gain the experience and courage I needed to jump out of academia and into the government. There are so many ways to be a scientist and to use our scientific knowledge and skills. I appreciate that I have been able to try new things and evolve my roles as my own personal priorities have evolved.

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?

The government sector can be very dynamic and interesting as agencies evolve to fit the needs of our society. Keeping a good awareness of novel scientific research areas and the broader needs and priorities of the American public are helpful ways to see where the sector is going. For students interested in this area, I would suggest continuing to do the science that you love and to keep an eye on the world around you. When finishing up your degree, it is so easy to get wrapped up in all the details and specifics of your research system. But what you do next is more about how you/ your work fits within a larger framework and how your knowledge and skills allow you to build and make connections. I think it's important to take time and opportunities to explore those spaces and see where you fit into that larger world and what you like. Fortunately, in the government sector, there are several opportunities for exploring and gaining experiences through paid internships, fellowships, and post-docs. This is a great way to try things out and make new connections.

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?

Networking is very important, and I have found people to be so welcoming and helpful. There are so many opportunities and people are great about sharing tips and connecting people. Again, I would emphasize the benefits of taking the time to explore the various government agencies and the opportunities they provide. There are many different ways to be a scientist in the government sector. Scientists in government may be focused on doing mission-driven research, developing policy that influences science and future directions for the field, to communicating about science and developing our scientific workforce. There are so many possibilities and I encourage students to apply for paid positions (internships, fellowships, post-docs, short-term positions) that allow you to learn more about an agency or position type and get your foot in the door. The purpose of these positions is to attract students to government service and to help people make connections and ultimately place scientists in government positions. I should add that these types of positions are also available for more senior folks who are interested in the government sector and may be considering a shift in their careers (as I did myself).

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

At the National Science Foundation, there really isn't a typical day and things really flow in seasons based on the federal fiscal year calendar (begins October 1). That determines when we will receive funding, how much we will receive, and sets our timeline for working with the scientific community on the proposal review process. About 90% of NSF's annual budget goes to funding research, education, and related activities, so things are quite action-packed. On a given day, I may be meeting with folks who are interested in submitting proposals or who have questions about their already funded projects. I may be participating in a workshop/webinar/conference for scientific community members or for the public. I may be working with collaborators at NSF and/or other agencies to think about future directions in the field and the needs for developing new funding opportunities. I spend a lot of time reading proposals and annual reports and being in awe of the creativity and brilliance of our community members. I spend days running numbers and trying to strategize new ways to access funds for our community. And every now and then I take a research day and work on fossil insects.

What is the best part of your job?

The people. I love the people I work with. NSF tends to attract service-minded individuals, and everyone is so dedicated to their scientific communities. I think we all see ourselves as advocates and champions for scientists and educators and we want to see people succeed. I also love working with the science community. I know how hard people are working and that it can all feel so overwhelming. I really enjoy helping people learn how to navigate the NSF system and feel more comfortable with the process, and hopefully have more success in obtaining funding for their projects. And, as a Chicana scientist, there is nothing better than the mentoring opportunities that I have had to work with students and early career scientists from across the country. The work of Equity and Inclusion has always been a core part of what I do, and now I can do that important work on a scale that is much greater and hopefully more impactful.

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

I know that government sector positions and people can seem intimidating, especially at my agency. I was terrified to talk to my NSF program officers for most of the early part of my career. However, once I did, I found that they were so friendly and helpful. Many of us wish people would reach out and connect and ask questions. We understand that we are in positions of service, and we are here to help you. And if we don't know the answer, chances are good that we can connect you with someone who does. So, if there is someone doing something that seems interesting to you, please reach out and make that connection.

Connect:

[linkedin.com/in/dena-smith-nufio-03281934](https://www.linkedin.com/in/dena-smith-nufio-03281934)

Also, here's my twitter handle (although I'm more of a liker and retweeter): @DenaSmithNufio

Learn More:

More recent spotlight:

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More about my research, part of a National Park exhibit:

<https://www.nps.gov/flfo/learn/nature/meet-the-scientists.htm>

Older – academic/museum focused:

<https://www.myfossil.org/featured-paleontologist-dena-m-smith/>

Older – academic paleontology focused:

http://paleoportal.org/index.php?globalnav=paleopeople&interview_id=13