

Diversity Statement
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If the field of environmental science was diverse, the environmental scientist community would comprise a representative swath of humanity, across all axes of variation that we manifest, all equally empowered to express their findings and views and to contribute to change. Regrettably, however, one can observe almost any environmental school, department, conference, editorial board, panel, list of fellows, etc., and plainly detect, no statistics necessary, that we have not reached that point.

When I volunteer to engage young children in environmental or science education, I generally find that almost all of them manifest enthusiasm for at least some part of it. Of course, I have worked with kids who properly squeal when the bugs or the snakes first come out, but within a few minutes most will reach out or lean over the microscope with everyone else. I have worked with children who have never been in the woods or off a trail before. Some were the same children who showed up without lunches, late, because their mother and aunt had just gotten off her shift. Their joy at experiencing a little nature, then understanding some of how it works, and becoming more comfortable in it, felt especially rewarding. I have done my best to channel the burgeoning energy of children moving too quickly to listen to me into an activity in which they could learn through simulating soil processes while running. I have watched excitement and appreciation in mentally disabled children emerging down into a wetland, and carried water samples up to a boardwalk for a wheelchair-bound child who then did the same chemical tests as everyone else. I firmly believe that all humans are born with the raw materials necessary to contribute to environmental science, and I know from my own experiences as a researcher that we need the collaboration of all different kinds of people, from cattle ranchers to poor black communities with woefully insufficient infrastructure, to understand and ultimately conserve our environment.

However, through my own development as an environmental scientist, and as I continue to observe contemporary education and science, I witness the departure from the field of most people who deviate from the mean, median, and modal demographic of the environmental scientist. Even I, a white, cis-gendered, heterosexual, apparently able-bodied person, pretty close to that standard, sometimes feel that who I am is fundamentally not reconcilable with the type of person senior people in my field want working here. I have automatically learned to veil parts of myself, especially around more senior scientists- my physical and mental health struggles resulting in part to abuses and trauma in my past, what remains of my rural Southern culture and the ways that the academic one still feels a little foreign, that I even think acknowledging scientists as people too is critically important to the practice of science, and so on. In the past few years, I have been making a conscious effort to “out” myself more, because I think our collective practice within academia of not often frankly and publicly discussing such personal experiences is hurting all of us already here, and making our community appear even more forbidding from the outside. What is lost to my colleagues and my practice because of my narrow self-portrayal is relatively slight compared to what I hear people farther from the modal demographic of environmental scientist find themselves compelled to lose, disguise, or leave at home in order to gain acceptance. We must lose so much more in all the people who drop out of the field altogether because of their unwillingness or inability to conform to unnecessary standards. This “leaky pipeline” is a huge waste, and much the sort of infrastructure problem about to become completely unsustainable for our field as our literally increasingly leaky water main and sewer pipelines in the U.S. We need to make structural and institutional level changes, not just in recruitment, but in retention, through practices of inclusion and equity, through real commitment of thought, time, effort, and resources.

What really brought teaching issues around diversity flaming to the forefront of my mind was working as a teaching assistant for a course in urban restoration ecology that was part of an experimental partnered program between Duke University and historically black Paul Quinn College. It started in class with difficult, somewhat avoidable issues that the professor had to make the final decisions about, like that our course within the program was designated to fulfill a writing requirement and crammed into three weeks, but the two schools prepared vastly different writing skillsets, and somehow we had to grade everyone fairly. Towards the end of the program, though, tensions blew wide open, largely in front of the students, through accusations of sexism, racism, and worse. At one point I had to fly to Dallas, as the only member of the original teaching team left and available, and get my students back to working together and feeling optimistic about all their final community projects, most of which I knew little about. In the one task I had expected to guide students to lead, we had a great creek cleanup on campus with other Paul Quinn students and community members, including local activists who really helped me understand watershed issues in poor communities in ways I had not even considered before, as we pulled trash out of the bushes and creek bank together. I learned more than I helped or taught, of my ignorance if nothing else. My whole experience of that program, of so often feeling uselessness in the face of large institutional problems all the way down to small interpersonal interactions, made me much more aware of and concerned with learning about and solving issues around diversity, inclusion, and equity than I had been previously.

I had already been making a bit of an effort as Social Media Editor for Duke Women in Science in Engineering; I have kept the followers of our [Facebook page](#) and newer Twitter feed, including non-women and folks outside of Duke, regularly updated with relevant scientific and popular articles that have tended increasingly towards the intersectional. After my experience with the Paul Quinn students, though, when elected to represent my department for the PhD student council of my environmental school, I raised diversity and inclusion as issues we should re-focus upon, and established ties between that council and the master's student organization for diversity and inclusion. We agreed to a joint resolution, with other signatories, that a proven record in increasing and retaining diversity should be a criterion in the search for the school's new dean; she starts this summer. I had previously written [a blog post](#) for the school about my own implicit bias and pointing out that our racial diversity had little improved since previous diversity accounting and resolutions years ago, and later [one](#) on the benefits of mental heterogeneity in a population of researchers. So, at around the same time as my student government activities, these posts got me invited to a couple diversity workshops with the school's acting dean and other administrators, and I tried to contribute by encouraging them to consider less visible forms of diversity, and to look beyond recruitment to preparedness to meet the needs of diverse people, with necessary resource investment. More recently, I encouraged my advisor to bring up similar points, and others of inclusion, in faculty-only such meetings. I have marched a student from her home to mental health treatment, argued with a superior about what I saw as mild exploitation of relative privilege in labor practices, and otherwise pushed the boundaries of appropriate behavior in trying to promote inclusion and equity. My commitment to these issues is firm, personal, and sometimes a bit disorderly if need be.

Beyond my workplace behavioral nudges, I continue to do environmental science outreach with a variety of people both in person and online, and I remain committed to including usually ignored socio-ecosystems and non-scientist collaborators in my research. So, while I still make plenty of mistakes, and always could do more to help than I do, I have been trying to shape my little neighborhood of environmental science to function more like the diversity-friendly place it needs to be. It will remain important to me that my employer supports my desire to further such work.