

Rich Pauloo: Engaging with Future Mentors¹

Fall 2014

Rich Pauloo hiked the last few steps out to the Pt. Bonita Lighthouse and stopped to look out over the Pacific Ocean. He felt lucky to have lived for the last few years in the Marin Headlands where he was an educator with NatureBridge, an environmental science program for young adults from middle school through high school, as well as the general public. He loved teaching about environmental science and climate change, and his work had allowed him to develop excellent organizational capabilities and superb public speaking skills. Yet realizing it was time for a change, he had recently started thinking about a new career direction and going back to graduate school.

Noticing the low fog bank on the ocean's horizon, Rich let his eyes roam the vast blue grey expanse. He then turned to walk down the narrow pathway to his car, going over in his mind the graduate school application components. He had a good GPA from UC Berkeley and strong test taking ability with which to tackle the GRE. He had worked on a couple of research projects as an undergraduate and was ready to spend the time writing a compelling statement of purpose and personal history statement. But Rich knew that there were many unknown factors involved in being accepted to a PhD program, and he also did not want to leave Northern California. There were only two schools that had environmental science programs in which Rich had an interest, UC Davis and UC Berkeley. He was determined to figure out the 'best practices' needed to apply to graduate school and gain admission.

Faculty in the sciences often needed graduate students to work on their large research projects that were funded by federal and institutional grants. Students were expected to work for their advisors, and in turn, their tuition and living expenses were supported through the grant funding. Rich knew he needed to find a topic that he would enjoy studying but that also dovetailed with the interests of the faculty. There was also the possibility that he could obtain a fellowship of his own.

¹ This case was prepared for use as the basis for class instruction and discussion by Carlos Andrés Barragán, PhD and Sylvia Sensiper, PhD, Director of the Guardian Professions Program, Office of Graduate Studies, UC Davis. The following have provided funding for the GPP: The Stuart Foundation, the May and Stanley Smith Charitable Trust, The California Wellness Foundation and the University of California Office of the President.

Rich had searched the Internet for information about the graduate school application process and had purchased a book that described in great detail how it worked and the best strategies for getting accepted. *Getting What You Came For* was an older book but it had weathered the years and was in its second edition.² Rich decided he would apply to both schools but that UC Davis was his first choice. Were there ways to ensure that he could gain a spot in next fall's cohort of graduate students?

Early years and Foster Care

Rich remembers his short experience within the foster care system as “extremely confusing,” because he wasn't sure when he would see his parents again. He and his sister were sent to different homes while his parents sorted out custody and other contingencies after a failed relationship. Eventually his mother regained custody of both children and started working. During his adolescence, Rich explored sports but also spent a great deal of time in the library where his mother's friends could look after him. He developed a passion for reading and a self-awareness of his curiosity for knowledge. In high school, he participated in track and cross-country, served as president of the school's National Honor Society, and also began tutoring other students with the Cal Roteract Club. Roteract is the collegiate version of the world's largest service organization, The Rotary Club.³ “I was just a student myself, but through tutoring I had the opportunity to actually help other younger students learn to read and do their math,” he said. “It was really empowering for me and also beneficial for my students.” Rich's mom always encouraged the value of education, something she couldn't pursue for herself but wanted to ensure for her children.

When the time came to apply for college, Rich had an excellent GPA, good SAT scores, and hundreds of hours of community service. He applied to a number of UCs and was accepted to UC Berkeley, UCLA, UC Riverside and UC Santa Barbara. UC Riverside offered an excellent funding package but Rich felt it was too close to home, and that a change of environment and a new challenge were important. “I remember talking to my cousins and my teachers and they told me, “‘You got into Berkeley? You should go to Berkeley.’ So I did.”

Studying at UC Berkeley and Working

Rich did not have a definitive plan when he entered UC Berkeley, so he happily explored classes in anthropology, astronomy, biology, sociology, chemistry, physics, and psychology. At one point he thought he wanted to pursue medical school and took a number of classes that pointed him in that direction, but finally completed his degree with a major in Integrative Biology and a minor in Conflict Resolution. “My decision on a major was not a particularly smooth process but it worked out in the end,” he said. “Not every undergraduate knows what they want to do for a career, and I do wish I had spoken to advisors earlier.” A natural teacher, Rich has a lot of suggestions for undergraduates

² See, Peters, Robert. 1997. *Getting what you came for: the smart student's guide to earning an M.A. or a Ph.D.* New York: Farrar, Straus and Giroux.

³ See <http://calrotaract.org/>

including making sure they check in with advisors so they graduate on time. “There’s so many different kinds of employment, but getting out of school on time is both cost effective and necessary,” Rich said.

Moving to Berkeley was a new adventure and a source of engaging opportunities for Rich to explore. He found a place to live in a student run cooperative where his social life expanded. He also worked as the co-op maintenance manager, decreasing the cost of his room and board by up to 66%. Although Rich was offered some funding from Berkeley, he was responsible for a portion of the cost of tuition as well as his personal expenses, so he worked 15-20 hours a week during his undergraduate years in addition to his full course load.

His first on-campus job was as a literacy tutor at UC Berkeley’s Public Service Center, a job he got due to his volunteer work in high school. He later became the student director for the Center. He also worked as an event assistant at the International House, an excellent position because of the flexible schedule it afforded. During summers, Rich taught at engineering camps for kids.

The Community College Detour

Shortly before his junior year, Rich found out that his father was ill with a terminal disease, a situation that forced him to reconsider his relationship with a man who had not been a part of his life. He forced himself to ask hard questions about what it would mean to not know anything more about his father and how he might deal with his unanswered questions about his dad’s life should he suddenly pass away. After a good amount of soul searching, Rich finally came to understand that taking some time off from school and allowing himself a chance to reconnect with his father would be very valuable, as well as key to addressing some of his own uncertainties. As a result, he requested a leave of absence from UC Berkeley for an entire academic year and moved closer to his father’s residence. During this time, he worked part-time and attended community college in order to keep on track with his academic schedule.

This detour of getting to know his father was helpful to Rich in a number of ways. He was able to gain closure about some of his family history, and came to realize that the adversities he faced growing up had actually helped him develop a particularly strong self-reliance, courage and creativity. Rich also discovered the rich resources of California’s community colleges. He was impressed with the wonderful classroom instruction that seemed, on some levels, to be even better than what was offered at a university driven by research goals. At Santa Monica City College, Rich was able to complete two classes that allowed him to declare biology as his major once he returned to UC Berkeley.

Working in Laboratories

In the middle of his last semester of undergraduate studies, Rich took a job as a field technician with the US Department of Fish and Wildlife on a project concerning the

American Pika.⁴ The work began in March of 2011 and continued through the summer months. It included field research, allowing Rich to spend time in the Sierra Nevada where he used Google Earth to map and identify potential plots and then conduct locality resurveys throughout this mountainous region.

The following January of 2012, Rich took on similar work for the UC Berkeley Fine Lab, where he was a co-investigator on a research project focusing on invasive species ecology in Strawberry Canyon. Continuing to build his skill set, for this project Rich designed the research methodology, collected data, interpreted the results, wrote a paper and also gave a presentation to faculty. Rich took one more lab position as a research assistant before moving in another direction. At the UC Davis Rizzo Lab, Rich worked on a project examining the pathogens and disease symptoms caused by the Phytophthora species. This large survey of flora included a 500+ plot network throughout California.

Educating Young Adults at Naturebridge

In August of 2012, Rich started a job as a science educator for NatureBridge, a nonprofit organization that provides environmental education programs in six national park locations. In this capacity, Rich taught children and youth about the great variety of environments in California, the value of nature and how important its preservation is for future generations. At NatureBridge, Rich was able to master real-world skills in program management, public speaking, and, of course, teaching. In his new job, he fell in love with the idea of a hands-on approach to advocating for the preservation of nature and the need for a more sustainable planet.

After several years with NatureBridge, however, Rich realized he had reached a plateau and was no longer feeling challenged. The work he was doing was important yet he was hitting barriers within the organization and wasn't able to see a path forward. Finally, recognizing the need for a career development plan, Rich began to conduct an assessment of his objectives and an inventory of his skills. His goal was to determine a new vision for his future and where he wanted to go next.

The Decision to Return for a PhD

Rich's mother had instilled in him a deep value for education and during his undergraduate years at UC Berkeley he had considered pursuing a higher degree, particularly since he enjoyed teaching. "I've always wanted a Masters or a PhD because to me it represents the consummation of all of my mom's dreams for her children," he said. "My mom has always just wanted both of us to be educated and successful and to contribute to society in a meaningful way. She's always told us, 'I don't want you to have to work as hard as I have.'" Rich also realized that although his NatureBridge position gave him an incomparable teaching role, he missed doing science, something he spent many hours studying in college and for which he had a passion. He reasoned that pursuing a PhD might allow him to both teach and engage in science.

⁴ Pika are a smaller relative of rabbits and hares.

To get started on his new goal, Rich searched the Internet and purchased the book *Getting What You Came For*. He also started talking to people, looking at different graduate programs, and reading news and scientific articles produced by the faculty at each institution in which he had an interest. As he developed more insight into the application process, Rich also reached out to the graduate program coordinators who administer the programs. Then he made a great effort to schedule short 15-20 minute phone conversations with graduate students in each of the labs he was interested in joining to get a sense of the major professor's personality and ongoing projects before reaching out directly to professors. "Graduate students were much easier to reach than professors, and all of the students I requested to speak with were more than happy to help. Most of them gave me really great advice and insight into what life was like working for their major professor," Rich said.

Once he had "done his homework," by reading the recent research coming out of the labs and speaking with current graduate students, Rich sent his CV to professors accompanied by a succinct email offering his availability for a quick phone call in the upcoming week. (See Exhibit A)⁵ Rich knew that with the high volume of applicants, by making a personal connection to faculty his application would stand out from the pack. Once he had established introductions through phone and video calls, he planned visits to UC Berkeley and UC Davis, which were relatively close by, intent on making a positive first impression that could help his chances of admission.

When he informed the academic adviser for UC Davis that he was planning a visit, she contacted three current graduate students from the department to meet with him for lunch and answer his questions. The day Rich arrived, he walked around campus and tried to imagine if Davis was a place he would enjoy going to school. His objective for that day was to build relationships with potential major professors who could vouch for his admission, and to determine who he really wanted to work with. "On the subject of jobs, my mom always said, 'you've got to get your foot in the door and make a good impression if you want to get hired,'" Rich said. "For me that meant actually showing up and having a conversation about ongoing projects in labs, asking good questions, and demonstrating my competence to potential employers - the major professors. It also allowed me to judge if the professors were people I would get along with, as people can be very different in person than over the phone."

Ultimately, Rich decided that hydrology would be a good field to merge his passions and the skills he had accrued through his previous jobs, and he directed his attention towards graduate students, academic coordinators, and faculty in these departments. Once his mind was made up, Rich began writing his statement of purpose and personal statement. (See Exhibits B and C) He wanted to produce a good application and wondered how he would account for his lack of any substantial experience in the field of hydrology. He decided to address this issue tangentially and instead emphasized the transferable skills he *was* bringing to the program that might make him more appealing than other applicants and indicated what he would do in the future as a hydrologist.

⁵ The phone numbers and emails have been redacted or erased from these emails.

In his statement of purpose he laid out the connection, explaining that he had been a science teacher and had worked with audiences of various ages that were both ethnically and socioeconomically diverse. Rich claimed that his ability to enthusiastically and thoroughly explain science concepts to 10 year olds as well as 65 years olds would be an invaluable skill in his future career as a hydrologist. He demonstrated that his teaching skills would make him a good communicator whether he ended up working in academia, government, at a nonprofit, or for an environmental consulting company. Rich's ability to provide the admissions committee with a clear idea of his career direction was helpful and indicated he had thought a lot about where his degree might take him.

Rich spent quite a bit of time creating relationships with faculty and staff at both UC Davis and UC Berkeley, and was hopeful these interactions would benefit his application. Recalling his strategy for talking to professors during this time, he said, "In my emails and talks with professors, I brought up research they had worked on, asked them what ongoing projects they had funding for, and most importantly I listened. These phone calls, emails, and in-person visits helped me form relationships."

Major professors will work with a student for 2-5 years, and want to select people they get along with and who will mesh well with the other students and researchers in their lab. Rich also wanted to determine if he wanted to work with these professors, and whether the program was going to be a good fit for him. After all, he was getting ready to commit up to 5 years of his life to working for a major professor, and he wanted to ensure he made the right choice.

Exhibit A: Scheduling a Meeting with Professor Helen Dahlke



Rich Pauloo <xxxxxxxxx@gmail.com>

11/9/14



to hdahlke

Dear Professor Dahlke,

My name is Rich Pauloo and I'm a prospective graduate student applying to LAWR and Ecology. I've identified you as a potential mentor in hydrology for the CCWAS IGERT. I spoke with one of your students, Andrew, last week and he said all good things about you.

I have a background in biology, ecological field research, and 3 years of teaching outside of college. I'm interested in research at the interfaces of climate change, water quality, atmospheric science, and society. My CV is attached.

Would you be available to speak over the phone this coming week, 11/10-11/14? I'm free to speak anytime on Tuesday, Thursday and Friday.

I know you are most likely very busy, and I appreciate any time you can give me. Thank you very much,

Sincerely,
Rich Pauloo
(xxx) xxx-xxxx



Helen Dahlke <xxxxxxxx@ucdavis.edu>

11/10/14



to me

Dear Rich,

Thank you very much for your email. I am happy to talk to you over the phone or meet you in person if that is easier. I am available on Wednesday after 4 pm and Thursday between 9 am and 12 pm. Please let me know if any of those times work for you.

Thanks,
Helen

--

Dr. Helen E. Dahlke
Assistant Professor in Integrated Hydrologic Sciences
University of California, Davis
Department of Land, Air and Water Resources

1 Shields Avenue, Dept. LAWR, PES 1111, Davis, CA 95616
Office: 235 Veihmeyer Hall
Cell: (xxx) xxx-xxxx ; Office: (xxx) xxx-xxxx
Website: <http://dahlke.ucdavis.edu/>
Email: xxxxxx@ucdavis.edu
Skype: xxx.xxxx



Rich Pauloo <xxxxxxxxx@gmail.com >

11/10/14



to Helen ▾

Dear Professor Dahlke,

Thanks for getting back to me. I would be able to speak over the phone this Thursday around 10am. Can I give you a call then? Please confirm if this is good for you.

I appreciate your time! Take care.

Best,
Rich



Helen Dahlke <xxxxxxxx@ucdavis.edu >

11/10/14



to me ▾

Thursday 10 am works fine for me.

My phone number is

Thanks,
Helen



Rich Pauloo <xxxxxxxxx@gmail.com >

11/10/14



to Helen ▾



Categorize this message as:

Personal ▾

[Never show this again](#) ×

Dear Professor Dahlke, thanks for confirming! I'll speak to you then. Thanks and take care!

Best,
Rich



Exhibit B: Personal History Statement

If there is one guarantee in life, it is the inevitability of struggle, yet it is from these opportunities that I have learned and grown. I spent my early years outside of Perris, a town east of Riverside where I grew up exploring the vernal pools that formed in the springtime and walked through fields of orange poppies. We didn't have electricity or TV, so I read voraciously. Life was idyllic. In school, I excelled and skipped 1st grade.

When I turned 7, everything changed. My parents divorced and my sister and I were placed in separate foster homes. For a year I didn't attend school until shortly after my 8th birthday when my mother, an immigrant, and now a single parent, regained custody of my sister and me. My father removed himself from our lives and never paid any child support. Although we would have qualified, my mother vehemently eschewed applying for food stamps—she was too proud. Instead, she took on multiple jobs.

Working in kitchens and restaurants to support her children, my mother was my first role model, imprinting onto me values of hard work and determination. Everything she did, she did with distinction and never complained. My mother's indefatigable spirit and assiduous pursuit of excellence is one of my earliest and most potent formative experiences. It has taught me the power of self-motivation and perseverance in the face of all adversity.

My natural curiosity and studiousness, I believe, helped insulate me from the pitfalls of my hometown: gang violence, academic apathy, drugs, and teen pregnancy. Not many of my peers attended college, let alone a university. As part of the less than 1% Asian population in my town, I had my first experiences with racism in high school.

It was in high school too, that I discovered my passion for teaching. I tutored K-5 students in literacy and math for three years in high school, found opportunities to teach throughout college, and currently teach environmental science. To me, teaching is simply helping others. The teachers and mentors who took time with me were lamps illuminating my path. Through teaching, I am able to be that same light for others.

I graduated at the top of my high school class and attended UC Berkeley where in addition to teaching and research, I worked every semester. Between my third and fourth years at UC Berkeley and after 12 years, my father contacted me, as he had been diagnosed with prostate cancer. Seeking a much needed sense of closure, I decided to take a year off to get to know him, confronting him as a man after living through years of struggle in his absence. To keep up with my education, I took community college classes and by the end of the year, I was able to move forward, stronger and more motivated to finish my undergraduate degree. I returned to UC Berkeley, narrowed my interests on environmental science, gained research experience in field biology, and found work as an environmental educator post-graduation.

I currently teach the next generation about the natural world and their place in preserving it for future generations. I believe in what I teach, and that it has an effect on tomorrow's decision-makers. Moreover, in this role, I have been afforded the rare opportunity to live in nature and watch the seasons change, year after year. I have developed real-world skills in teaching, public speaking, and program management, and am now driven to pursue graduate studies so that I can contribute to society as a scientist and teacher.

As a former foster child, the son of a single parent from a low-income background, and a first generation college graduate on my mother's side, I am keenly aware of a range of social inequities. These experiences have enriched my connections with others and my ability to empathize. My future goals include mentoring and supporting students from underrepresented backgrounds as a professor, and working as a professional in the field of water research and management to ensure sustainable and safe sources of water for all Californians.

Exhibit C: Statement of Purpose

As an undergraduate at UC Berkeley majoring in Integrative Biology, I developed a passion for studying, researching, and teaching environmental science, and for the last three years I have honed my communication skills as a science educator. I now want to pursue graduate studies in Hydrologic Sciences. I believe a PhD will provide me with the necessary qualifications to work as a scientist and teacher dedicated to the sustainability and best management of water in California's changing climate. I am interested in long-term soil-water-climate interactions, primarily groundwater recharge, water quality, and best management practices, with an emphasis in California. Ten years from now, I envision myself teaching at a university, or in a management role in a governmental or nonprofit organization working on water resource management, environmental consulting, and research.

At UC Berkeley, I took a wide range of coursework in the sciences including chemistry, organic chemistry, biology, physics, calculus, botany, and paleoecology. I have plans to take geology and statistical programming in R before Fall 2015. My past research experiences include field studies on Sudden Oak Death, the impacts of climate change on the American pika, and a forest ecology research plot I designed and established with other students to investigate invasive species dynamics. These research experiences have taken me to field sites across California, exposed me to the nuances of designing rigorous methodologies, and given me opportunities to analyze data. I have also taken the lead role in writing a scientific paper and given a formal presentation on the results of my research. I fully understand the challenges and rewards of graduate research, and am motivated to return to school.

A PhD in Hydrologic Sciences will allow me to engage in interdisciplinary coursework and research which is critical to understanding and addressing emerging environmental issues. Courses such as ecosystem biogeochemistry, groundwater modeling, remediation, aqueous geochemistry, and GIS will equip me with the perspectives and quantitative tools to understand and address water sustainability and water quality issues in California. One day, I can see myself using these skills to benefit others internationally.

I am also drawn to UC Davis by the collaborative faculty. Professors have listened to my interests and shared their own in a collegial way, and graduate students report satisfaction with the mentorship they receive. My interest in soil-water-climate interactions, like water quality and groundwater, align with many LAWR faculty, especially those in Hydrologic Sciences. I am interested in Randy Dahlgren's interdisciplinary expertise on water quality and nutrient cycling in California. I have also spoken with Helen Dahlke, Toby O'Geen, and Thomas Harter about their work on groundwater banking, water quality, and ways to use GIS and soil survey information to aid agricultural decision-making. I see potential to work with them on projects related to agricultural groundwater banking and soil-groundwater relationships. In addition, I am interested in the CCWAS Fellowship and the opportunity to study the impact that climate change will have on groundwater California. Lastly, faculty history in securing research partnerships with local, state, and national agencies also draws me to UC Davis. I hope to do work that has

a direct and positive impact and want to become familiar with governmental and nongovernmental agencies working on soil-water-climate interactions for the benefit of society and the environment.

In summary, I am motivated to make a positive impact on the health and sustainability of water resources in California through research and education. With a PhD from UC Davis, I will be able to work towards sustainable water management at a university, or in a nonprofit or governmental environmental consulting and research organization.