



UNIVERSITY OF CALIFORNIA, SANTA BARBARA

College of Letters & Science

UCSB

Alumni Spotlight

This month's Spotlight features Jess, a former Aquatic Bio and Spanish double major who's now diving into the rivers of Puerto Rico on her quest to save the environment.

Jessica Chappell:
Integrative Conservation PhD Student



What are you up to now, post-graduation?

I am currently a PhD graduate student at the University of Georgia in the Integrative Conservation Program and Ecology Department. In this program, students from both natural and social sciences learn to collaborate and find integrative solutions to difficult conservation challenges. For example, my dissertation project focuses on the streams in the El Yunque National Forest, Puerto Rico. People need water from these streams to drink, but the aquatic animals that make the streams their home need water to survive as well. I study how we can make a compromise that is as beneficial as possible for both humans and the aquatic animals, without either side having to sacrifice too much. The picture above shows me measuring animal presence in the stream.

How did you get to where you are?

During my undergrad, I realized I wanted to be a professor and wanted to conduct research in a Spanish speaking country. So I majored in Aquatic Biology and Spanish (class of '08). I was volunteering at a lab in the Marine Science Building when the faculty member in charge of it, Dr. Steve Gaines, told me he had collaborators in Chile at a research station and that there was an opportunity to help out on a project there. So, after graduation, I took off to Chile! While there, I learned new research techniques and became fairly fluent in Spanish. I then completed a Master's of Science at the University

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of Puerto Rico, Mayaguez. My thesis there looked at the impact of an invasive clam on the phytoplankton community of local reservoirs. During this time, I also traveled a lot outside of the US, which opened my eyes to how ecologists need to work harder to find practical compromises in the environments they are trying to save. For instance, in Africa, the fish communities are in danger of going extinct because of over-fishing. But the local people are fishing to provide for their families. So if you are trying to conserve fish,

you need to work with the local population to reach a compromise where people can use the resource in a way that will make sure it will still be there in future generations.

One obstacle I did have to overcome was the difficulty of finding a PhD position. After my master's, I was forced to take a year off because no professor I wanted to work with had funding available. But my desire to become a professor and conduct research in a Spanish speaking country drove me to keep trying. I be-

lieved in myself and that I had skills other candidates didn't have. I just had to find where I fit. I learned that when the road gets rough, you should remind yourself why you are on the road you've chosen, because usually it's a good reason. I reapplied the following year and found a program that was a great fit for me and my interests. Even now, I give nature tours to school kids because it reminds me why I am working so hard: I want to teach and protect our resources for the next generation.

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What was the best thing you did as an undergrad to help you get to where you are?

The best thing I did by far was be a part of the UC LEADS Program, which I applied to sophomore year. UC LEADS is a UC system-wide program that helps undergrads

get into research and start presenting at conferences. I spent the summers after my sophomore and junior years conducting research and at the end of each summer we presented our work at a conference, experiences that put me ahead of many master's and even PhD students in the area

of presentations. UC LEADS also held a symposium every year where students from all the UC campuses would come and present their work, so it was a great way to meet people and see what sort of research was going on in the UC system. I gained a lot of experience and met many



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other ecologists working on different campuses, some of whom I still see at conferences today.

But the most important thing I learned from this was that you should just try. Try for everything. I almost didn’t apply, because I wasn’t sure that I was what they were looking for. But I took a chance, did the application, and I got to be a part of the program. And I probably wouldn’t be where I am today without it. Afterward, I had a friend at UCSB who wanted to go on a research trip to Antarctica. He wasn’t going to apply because he didn’t think he’d be accepted, he’d have to find a letter of rec...lots of excuses. I told him to apply because you never know, and four months later he was on a research cruise to Antarctica! It was awesome!

What do you wish you had known while you were in undergrad?

One thing I wish I would have done as an undergrad was take more statistical courses. I am learning that as a natural scientist it is just as important to be able to analyze your data as it is to know how to collect it.

I would encourage any aspiring biologists, ecologists, geologists, etc. to take statistical courses because that will definitely give you a leg up on the competition. Another thing I regret is not making myself more diverse, maybe through a minor in statistics or English. I think if you are the best of the best, you don’t need to be diverse because you’re the best. But outside of that, diversity can really help. It shows you are able to collaborate and work with people from different backgrounds, which is a really valued skill in today’s academic world.

What was the best thing about being a Gaucho?

The best thing about being a Gaucho was my fellow students. Because of where UCSB is located and its reputation, it attracts the brightest, hardworking students who also like to have fun and enjoy life. I had friends that were some of the smartest people I’d ever met, working on difficult research questions, but they liked to go kayaking and wine tasting on the weekends. I learned how to work hard

and finish projects efficiently so that I could then go out and join my friends for a horseback ride or a hike. It helped me sharpen my work ethic and develop a balance between school and life, which is vital or you’ll go crazy. You need a release from all that studying, and it’s really nice that in SB there are so many options for that and people willing to have those adventures with you.



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For articles like these, reminders of important deadlines, and more, like our Facebook page at:

www.facebook.com/AskJoeGaucho

If an alum's story is meaningful to you, consider reaching out with questions using the contact information provided.

Any final words of wisdom for the current Gaucho generation?

Take advantage of as many interesting opportunities as possible, and there are a lot at UCSB. You never know what you might see or who you might meet. At UCSB I went to lecture series, I

was a campus tour guide, and I volunteered

With Adventure Programs. I learned something from each experience and though at the time it seemed like just more extra work, they really helped shape who I am today.



Jess welcomes students contacting her via LinkedIn with questions about the field and for advice on how to use your time at UCSB to become rock stars in the ecology world. Requests to look over student resumes or to discuss your chances of getting into the field will not be responded to.

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