



Raisa Hernández-Pacheco

Researcher Background:

Raisa Hernández Pacheco is a population ecologist at California State University, Long Beach. Her Quantitative Ecology lab studies whether and how biotic and abiotic factors influence individual variability and population dynamics. Their research focuses on demography and life history theory and addresses questions regarding population fitness and selection gradients on survival and reproduction.

Q: How would you describe your science to a 5th grader?

A: Animals within a population have similar experiences. For example, animals within the same population experience the same daily temperature, the same amount of rain, or even the same storm. Yet, some of these individuals live longer, or have more offspring. I am interested in understanding why animals that share similar experiences can lead very different lives.



Q: Why did you become a biologist?

A: I am interested in understanding why individuals within a population vary and what factors support and maintain such variation. I am also fascinated with the possibility of describing how this individual-level variability translates into population dynamics through statistical models.



Q: What is your favorite part about your job?

A: One of the best parts of my job is the opportunity to be surrounded by smart, passionate, and talented people that I get to call peers. Some of those people can be students who share similar interests with me.

The opportunity to mentor them and contribute to their careers is a great part of the job.

Q: Do you feel that any dimension of your identity is invisible or under-represented/marginalized in STEM?

A: I do not feel invisible or marginalized. However, as a Latino woman in a highly quantitative field of biology working as a faculty member of a US institution, I am under-represented. Women in STEM are increasing in numbers but there are still many goals to reach concerning equality and equity. Latinos in STEM face even more difficult challenges, some of them related to many social aspects that create disadvantages such as being a low-income, first generation college student. My identity as a Puerto Rican is tied to both of these aspects but I am also lucky to be part of a US institution full of awareness that works towards eliminating some of these challenges.

Q: What are hobbies and/or interests that you have outside of your research?

A: I am very interested in exploring new countries and landscapes and so every year I plan at least one international trip. I also enjoy exploring landscapes in the U.S. and so I often plan hiking and camping trips to nearby parks in California. I also enjoy reading novels and exercising on a regular basis.

Q: What is your favorite thing about hiking and camping?

A: My favorite part of camping is sitting by the bonfire. Bonfires are not common (and not needed) in Puerto Rico where I grew up so I find it very new and relaxing.

Q: Why is it important for scientists to have hobbies?

A: Hobbies are good for everyone and activities outside work can equally stimulate our minds. Having hobbies is also important to reduce stress and learn new things. Balancing our lives with exciting and demanding scientific work and hobbies should promote a healthier lifestyle.

Q: What advice do you have for aspiring biologists?

A: Do research and learn math - two things often ignored by aspiring biologists, and not often advised in high school. When you expose yourself to authentic experiences (research) with the needed skills (math), you will discover a whole set of career pathways and interests beyond the traditional ones that you would have ignored otherwise.

