

Genaro Lopez (1947-Present)

Professor of Biology
University of Texas-Brownsville and Texas Southmost College

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Early Life

For Genaro Lopez, being able to give back to the place where he grew up is an accomplishment in itself. A Professor of Biology at the University of Texas-Brownsville, Lopez grew up in Brownsville, the oldest of Genaro Velasco Lopez Sr. and Maria de Carmel Lopez's five children. Though circumstances were often difficult, Lopez has fond memories of the role the natural environment played in his youth. "When I grew up here, it was a very rural area," he recalls. "It was a small town, and there was lots of nature all around. We were close to the beach, the mud flats, and there was a place called the monte where we went hunting. Sometimes in junior high school, I would go hunting for rabbits with my .22, and bring home three or four for dinner." Although Brownsville has grown significantly over the years and Lopez no longer hunts, he has devoted much of his career to educating the area's young people about their surrounding environment.

Education

Lopez initially attended the University of Texas, Brownsville as an undergraduate, later transferring to Texas Tech to complete his degree in biology. After graduating, he was torn between pursuing medical school or some other application of biology in graduate school. However, that internal struggle happened to coincide with the very first Earth Day, which helped make up his mind. "I started to see and read about issues of overpopulation, species extinction, and so on," Lopez recalls. "There was a lot of hope coming out of the 1960s in solving the world's environmental problems by actively engaging in them. So I decided to become an ecologist."

Lopez received his Ph.D. in entomology from Cornell University in 1975. He then returned to Texas, where he worked briefly at Texas A&M as lead agent for urban entomology in an effort to help exterminators adjust to new Environmental Protection Agency (EPA) regulations. However, Lopez and his wife were planning on having children, and the atmosphere in College Station didn't fit the environment they were looking to raise children in, "We wanted our children to grow up

in a bilingual, bicultural environment,” Lopez explains. The family returned to Brownsville, where Lopez took up a faculty position at his former school.

Career

“I’ve been fighting the good fight down here since 1976,” Lopez says of his career as a professor. His primary focus is teaching—as instructor for introductory biology classes at the university, he relishes the opportunity to influence as many minds and viewpoints as possible. “This way, I can focus on educating future politicians and businesspeople, and help them get a connection to the environment and living things.” In an effort to help students gain a better understanding of their natural surroundings, Lopez has instituted a project that has caught on beyond his classroom. “It’s a practical environmental and nature study section I do in my beginning biology courses,” he explains. “I have students work in groups of five, and prepare a portfolio with photographs of native trees or bird species and their characteristics.” The idea has spread throughout the university, and some of Lopez’s former students who have become teachers have begun similar projects in their schools. Lopez counts the idea’s widespread success as the most significant achievement of his career.

The University of Texas, Brownsville’s student body is over 90 percent Hispanic, and Lopez feels that he’s promoting diversity just by doing his job. “Just by being here at the front lines of where Hispanic people are actually entering the world of higher education...I’m promoting diversity,” he says. He has also mentored a number of Hispanic students more closely, including a current student whose history very much resembles his own. “Like me, he grew up dirt poor, and he learned English even later than I did (first grade),” Lopez says. “He is a brilliant young man. I have hired him to go out and look for different species of scorpions. Even though he is going to medical school, he’s getting involved in environmental issues, and I’m mentoring him on the environmental aspects of science and medicine.”

Challenges

While overall he is extremely satisfied with his work providing environmental education to the next generation of decision makers, Lopez is sometimes frustrated by a lack of change in the greater culture. “Even though I’ve been struggling and struggling, sometimes I can’t reach enough people to make a difference,” he laments. “There are still hundreds of students here who drive large cars, and their attitude toward the environment is one of destruction, of taking advantage and sucking things out rather than giving them back.” Still, he remains in the field because, “I’m an eternal optimist. Even though we might not win, we still have to keep fighting. That’s why I’m here.”

Highlights

Lopez stresses that not every aspect of his career is a struggle; in fact, sometimes his job seems more like a series of traveling adventures. Lopez’s environmental expeditions beyond Brownsville

began when he was an undergraduate there, when he traveled to Mexico's tropical rainforests and helped build cabins for birdwatching. Later, at Texas Tech, being bilingual turned out to be a huge asset, enabling Lopez to travel with his advisor and mentor Dr. Robert Baker to Trinidad, Colombia and Venezuela. Now, as a teacher and faculty sponsor of the environmental club at Brownsville, Lopez exposes his students to similar traveling opportunities. "My current research project is on mercury levels in game fish, so we get to go to fishing tournaments on the Gulf of Mexico and take samples," he says. "I also take the environmental club to rainforests in Mexico, where we hike, go spelunking and do nature studies. If you like outdoor adventure, this is the field you want to go into."

Importance of Mentoring to Career

Lopez encourages minorities with a passion for the outdoors and an interest in the environmental field to seek out environmental careers. While he acknowledges that the pay may not match up to medicine or other scientific disciplines, the payoffs from an environmental career come in other forms. "If things go the way they're going, there's going to be a huge demand for people who are able to help heal the planet," he says. "It may not pay the greatest, but the satisfaction you obtain knowing you're working toward ensuring the survival of humanity will offset that. Plus, it's just a lot of fun."

This interview was conducted in 2015.