



Alfonso Alonso, PhD (1963-Present)

Research Scientist and Conservation Biologist

**Center for Conservation Education and Sustainability
Smithsonian Conservation Biology Institute
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“Our generation has the responsibility to set the example on how to use natural resources in a sustainable way. That will be the legacy that we leave for future generations. And of course, we want it to be one that we are all proud of.” Alfonso Alonso, 2014.

Overview

Alfonso Alonso is a scientist and conservation biologist with the Smithsonian Institution’s Center for Conservation Education and Sustainability, of the Smithsonian Conservation Biology Institute (SCBI) in Washington, DC. The center employs approximately 50 scientists who are involved in environmental research and training, focused on promoting the long term conservation of biological diversity. Alonso has worked for the Smithsonian for the past 16 years. At Smithsonian, Alonso trains people in conservation biology, and researches how oil, gas, and mining projects can be carried out while minimizing their harmful impact on local plants and animals. Alonso has published three books, and over 80 articles including:

- Anderson-Teixeira, Kristina, Davies, Stuart James, Bennett, Amy C., Gonzalez-Akre, Erika, Muller-Landau, Helene C., Wright, S. Joseph, Abu Salim, Kamariah, Almeyda Zambrano, Angélica M., Alonso, Alfonso, Baltzer, Jennifer L., Basset, Yves, Bourg, Norman A., Broadbent, Eben N., Brockelman, Warren Y., Bunyavejchewin, Sarayudh, Burslem, David F. R. P., Butt, Nathalie, Cao, Min, Cardenas, Dairon, Chuyong, George B., Clay, Keith, Cordell, Susan, Dattaraja, Handanakere S., Deng, Xiaobao, Detto, Matteo, et al. “CTFS-ForestGEO: a worldwide network monitoring forests in an era of global change,” *Global Change Biology*, 21 (2) 528-549. 2015.
- Higgins, Mark A., Asner, Gregory P., Anderson, Christopher B., Martin, Roberta E., Knapp, David E., Tupayachi, Raul, Perez, Eneas, Elespuru, Nydia and Alonso, Alfonso. “Regional-Scale Drivers of Forest Structure and Function in Northwestern Amazonia,” *PLoS ONE*, 10 (3). 2015.
- Sahley, Catherine Teresa, Cervantes, Klauss, Pacheco, Victor, Salas, Edith, Paredes, Diego and Alonso, Alfonso. “Diet of a sigmodontine rodent assemblage in a Peruvian montane forest,” *Journal of mammalogy*, 96 (5) 1071-1080. 2015.

- Vanthomme, Hadrien, Kolowski, Joseph, Nzamba, Brave S. and Alonso, Alfonso. "Hypothesis-driven and field-validated method to prioritize fragmentation mitigation efforts in road projects," *Ecological Applications*, 25 (7) 2035-2046. 2015.
- Alonso, Alfonso, Dallmeier, Francisco, Korte, Lisa and Vanthomme, Hadrien. "The Gabon Biodiversity Program: A Conservation Research Collaboration," *Africa Today*, 61 (1) 3-15. 2014.

His accomplishments encouraged him to continue to pursue his work in the environmental field.

Early Life and Career

Alfonso Alonso is a scientist and conservation biologist with the Smithsonian Institution's Center for Conservation Education and Sustainability, of the Smithsonian Conservation Biology Institute (SCBI) in Washington, DC. The center employs approximately 50 scientists who are involved in environmental research and training, focused on promoting the long term conservation of biological diversity. These scientists also provide information to decision makers. Alonso has been with the Smithsonian for the past 16 years. "I entered as a program manager and scientist to work in a project in Peru" ,Alfonso explains. "Since coming to the Smithsonian, I have grown to know more about the real world in terms of what we need to do to save the environment. I currently train and teach many people the principles that I learned in school, and show them how they can be applied to real life situations." Alfonso currently focuses on how oil, gas and mining projects can be carried out while minimizing their harmful impact on local plants and animals.

Alfonso was raised in Mexico City by his father Ignacio, an electrician, and his mother Guadalupe, a housekeeper. He remembers having a lot of outdoor childhood experiences, including going camping with his family and being actively involved in a local Boy Scouts troop. Attending the Universidad Nacional Autonoma de Mexico, where he studied biology, had the greatest impact on his choice to follow an environmental career path. "My love for nature and the environment, as well as my desire to understand what organisms do to survive and to live and be happy sparked my interest in an environmental career", Alfonso recalls.

Alfonso finished his bachelor's degree while working in the field as a technical assistant for one of his professors. There, Alonso helped to collect data to understand the population dynamics of the monarch butterfly while overwintering in Mexico. After college, Alonso moved to the U.S. to get his master's degree and Ph.D. in Zoology at the University of Florida at Gainesville. He conducted his post-doctoral research at the University of Oklahoma, where he contributed to a study to determine the distribution of insects according to temperature and altitude in the Americas.

Importance of Mentoring Others

Mentors have been an important part of Alfonso's personal and professional growth over the years. His undergraduate advisor in Mexico, a brilliant and very math-oriented man, helped Alfonso become more comfortable with a quantitative approach to biology and his studies. His master's and Ph.D. advisor inspired him academically. "My current boss is excellent in terms of big picture thinking," he points out. "He has shown me things I never learned at school—a more 'real world' approach. I really appreciate

learning that angle. Because of his example I've been able to avoid some pitfalls that I otherwise wouldn't have. I've been fortunate to have very important people influencing my life." In addition, Alfonso's parents gave him a passion and love for nature. Alfonso's wife is also a biologist who does similar work in another organization; they are able to help each other on a regular basis.

Mentoring

Alfonso enjoys mentoring other minorities in the field. The SCBI runs regular training courses that give Alfonso the opportunity to interact with young people from Latin America, Asia, and Africa. The training courses provide ample opportunity for Alfonso to share his philosophies, ways of approaching research and his experiences on how to approach and resolve challenges. However, the route Alfonso chose does not provide as many opportunities to mentor as he would like; he believes that increasing his contact with graduate students would better fulfill his desire to mentor young enthusiastic conservation biologists.

Contributions

Alfonso points to the positive outcomes of three major conservation programs as the highlights of his career. The first was research for conservation of the monarch butterfly overwintering research in Mexico; Alfonso was one of the first scientists to really understand the biology of overwintering monarchs, and has helped many others learn the best ways to protect them. In Peru, Alfonso was able to work with a corporation with no prior knowledge of how to work without adversely affecting plants and animals in the field; the corporation, which has over 300 affiliates in the world, has since created a policy to better deal with biodiversity issues. The Peru program provided valuable information for the creation of a national park. Alfonso is currently leading a research and conservation program in Central Africa, a region that has little experiences with conservation practices. His work has led to the publication of three books and over 80 research papers.

Such outcomes continue to encourage Alfonso and convince him that he has chosen the correct career path. "I've had opportunities to interact with all sorts of people, from individuals in local communities to high level officials of the corporate world. When they have a better understanding of what nature is about, and develop positive understandings in that way, it keeps me going because I confirm that when people are informed they can make better decisions to protect the environment and that we can have a world where natural resources can be used in a sustainable way and maintained for the enjoyment and use of future generations", Alfonso comments.

Alfonso believes it is very important for more minorities to pursue careers in the environmental field. "Go for it", he says. "There are lots of opportunities and we have a lot to do—tons of things. It is very hard work in some cases, but it is also a very good fulfilling profession. And if you do the right thing, it can be good financially as well."

For More Information

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This interview was conducted in 2015.