About Me

Andre Lucas Simoes Araujo

Contents

Who I am and where I came from

I am from Brazil, and I was born in a city called Nova Iguacu, in Rio de Janeiro state. I always lived with my parents and my brothers. I have one twin brother and an older one. Since when I was kid, I really liked plants, I remember when I was around 8 years old, and I usually planted some randomly seeds in my grandma pots of ornamental plants - They got mad by the way.

In addition, to my passion for plants and biology, I liked also things related to architecture and design. During my high school, I took a technical course related to building. In my third year I had an opportunity to take an internship in a private company. I was 17 years old by that time. During my internship I noticed that architecture or civil engineering was not for me since it was a stressful moment of my life, and I was definitely not enjoying it. I learned a lot along though.

After finishing my high school, I pursue for college. As I mentioned I always loved biology and plants, then I decided to take Agriculture and Environmental engineering at Universidade Federal Rural do Rio de janeiro. In the beginning I enjoyed the course, although calculus classes were very stressful. In my second semester, I applied for an internship in the weed lab group from my university. By that time, I knew that they had some research involving phytoremediation of soil which I thought was very interesting, and it was the reason that I applied for the group. I had my own experiment related and it was a lot of learning. However, I noticed that I was more attracted for the weed science research than the environmental. As consequence, I took the national exam again to switch my major to Agronomy.

By the end of my undergraduate program, I had the opportunity to go to United States to take an internship in the weed science group of Colorado State University. It was an amazing experience. I learned a lot while I was helping the graduate students with their experiments. During my time in the weed lab, I had also the chance to possess my own experiment. It was very important to me once the data obtained from that I used in my final project to finish my Agronomy bachelors in Brazil. It was the first time that I used R with the goal to analyze the statistics from my experiment, and to create a graph of dose-response - I used drc and ggplot2 packages. The equation the had the best fit to my data was the 3 parameter log-logistic, as followed:

$$F(x) = D/(1 + (x/C)^{(-B)})$$

I spent one year and three months in Fort Collins and after that I returned to Brazil to finish my bachelor degree. When I graduated, I had the opportunity to come back to Fort Collins, to take my Master in the same weed lab group.

Here, it is a photo of myself in one of the place that I spend most of my time at work: at the greenhouse.

I am in my second semester as Master student. I decided to take Bioinformatics class because I think it will be extremely useful for my research at some point in the future.

I am an active person and those a some of the things that I like to do outside of work:

1. I love to get together with friends
2. Go to the gym at least 5 times per week
3. To play volleyball during the weekends
4. To watch TV show and movies

Research Interests

I'm interested in weed resistance and the mechanism of resistance related to it. I have been working in a weed resistance survey in which I have applied different herbicides mode of action to check possible resistant candidates.

Influential papers

As I mentioned, during my undergraduate program I was working in the weed lab group in Brazil. One of the projects that I was involved, it is related to an important weed called Conyza. That project was very fascinating to me, especially because the 2,4-D herbicide resistance involved to that population is very unique. The first report Pinho et al. (2019) was published in 2019. The same population is resistant to other several herbicides, and last year we published this paper Leal et al. (2021). A lot of work still have to be done to elucidate the resistant mechanisms involved to it. Although this is not my main project, it has been very important for me.

Citations

Leal, Jéssica FL, Amanda dos S Souza, Junior Borella, André Lucas S Araujo, Ana Claudia Langaro, Ana Carolina Chapeta, Eduardo S Amorim, et al. 2021. "Sumatran Fleabane (Conyza Sumatrensis) Resistant to PSI-Inhibiting Herbicides and Physiological Responses to Paraquat." *Weed Science*, 1–9.

Pinho, Camila Ferreira de, Jessica Ferreira Lourenço Leal, Amanda dos Santos Souza, Gabriella Francisco Pereira Borges de Oliveira, Claudia de Oliveira, Ana Claudia Langaro, Aroldo Ferreira Lopes Machado, Pedro Jacob Christoffoleti, and Luiz Henrique Saes Zobiole. 2019. "First Evidence of Multiple Resistance of Sumatran Fleabane ('Conyza Sumatrensis'(retz.) E. Walker) to Five-Mode-of-Action Herbicides." *Australian Journal of Crop Science* 13 (10): 1688–97.