

Professional and Personal Achievements

As a Guatemalan mom and scientist I feel honored to present both my professional and personal achievements to such a distinguished public.

I obtained my bachelor degree in Biology from the Universidad de San Carlos de Guatemala-USAC as part of my first collaboration in an international project with European Union funds dealing with the protection and management of the marine-coastal resources of the Gulf of Honduras (CISP, AIDCO/B7-6200/01/0373/ENV). Within this Project I was able to study the conservation state of neotropical freshwater and marine habitats of manatee populations from and produced two documents that helped both the research and social actors involved in the project. Thereafter I was granted a scholarship for a short course on management of coastal resources within the Swedish International Cooperation Agency (SIDA). This course led to the development of a masters in aquatic ecology funded by the Linnaeus Universität in Kalmar, Sweden. There I was able to work with a multinational research group and studied the effects of climate change (acidification and increased temperature) in the trophic state of the Baltic Sea, producing my first publication in an indexed international journal. I continued research with the obtainment of a doctorate studies scholarship within the Deutsche Akademische Austausch Dienst (DAAD) at the Technische Universität Berlin. I developed my project in one of the most important lakes from Guatemala, Lake Amatitlán. This study led to the first time quantification of three highly toxic hepatotoxins, Microcystins (MC) -LR, -RR and -YR in lake water, aquatic macrophytes and in crops irrigated with water from Lake Amatitlán. Further laboratory research identified that three of the local aquatic macrophytes serve as good phytoremediators by up-taking and biotransforming of all three MCs from the lake. These results are now included in three indexed journals as main author and in my thesis which earned me a degree of Doctor in natural sciences (Dr. rer. nat.) with a mention of CUM LAUDE. This type of research is very promising for countries like Guatemala, where less economical resources are located for the protection and recovery of important water ecosystems. The technology here proposed pose as an efficient and cost-effective solution for the elimination of such dangerous toxins. As we returned to Guatemala I was appointed Professor in USAC and lectured two courses. I also won funding for a project in Lake Amatitlán to be developed in 2019 and have the honor to be selected winner of the prestigious The World Academy of Sciences-TWAS price 2018 representing Guatemala. Now I have been appointed Director from Centro de Estudios Atilán-CEA, Universidad del Valle de Guatemala. The Center is a national referent for environmental studies in the Atilán Basin including the county's third biggest lake and management of a Mayan pre-classical archaeological site, San Andrés Semetabaj.

But no professional achievements come without personal ones. Firstly I could mention my successful incorporation to both Swedish and German societies and research environments. So much I learned and loved them that I decided to share my life with a German citizen. Finally being a mother of three children, I could mention as my greatest achievement. Going through birth and raising experiences both in Germany and in Guatemala and also living in three different countries have made me think a lot on the true meaning of happiness. The experiences and lessons I gained until now have made me more human, more in touch with my Mayan background and also more aware of the true needs of us humans and the importance of the connection and respect to our natural environment. All these I now use to raise our kids and to develop coherent and useful science. In conclusion, my life has been full of ambitious goals that with hard work and the support of God and my extended family, have developed into realities. I'm very pleased and thankful for taking your time to read and learn a little of my life. I just need to add that, "life for me has just began!"