

A MID-SUMMER DAY DREAM...

By Amna Riaz

It all started in ninth grade...

She developed a rather peculiar interest. She started to read and write about snakes.

She was always a bright student and was forced to choose Biosciences over Commerce. She eventually gave in and started to read and write about her favorite topics in Biology.

Her source of inspiration were wildlife programs that used to get aired on National Geographic Channel and Discovery Channel. She started to dream of becoming a wildlife biologist and work on snakes...

In her biology lessons, she used to ask many questions. The questions were to such an extent that teachers started to get fed-up and used to tell her that she needs to wait another year and ask the same questions to a teacher of a higher level.

After her intermediate, she chose to go to LUMS only to get rejected from her dream University. She gave up becoming an M.B.B.S doctor and wanted to become a wildlife biologist. She eventually crashed in Karachi University. Reason being that there were only a handful of universities across the country that offered B.S. in Biology.

Her questions remained unanswered even after all these years. But luck was on her side. She was the most determined student of her batch. She eventually landed an internship in WWF-Pakistan, where she finally met the experts of her dreams.

She was unaware that WWF-Pakistan would turn out be the place where she would meet her Guru, her Research Master and her Mentor. Sir guided her well. Taught her how to conduct research. Taught her how identify snakes biologically and most importantly, guided her on what to do next.

She applied for Masters in Scotland only to get an admission in Herriot-Watt University but without scholarship. Her dreams got shattered again and since she didn't want to waste any more time, she applied to an MPhil Program, but again, in University of Karachi.

The big step here was to again choose... her heart was still in snakes. Her Guru guided her for sure, but never answered her questions. He told her that snakes are a common member of many food webs and are found in almost every single ecosystem out there. So, if her interest is in the animal, she should not limit herself to a particular specialization. He further said that instead of

opting for Wildlife, she should go for Marine Sciences. Reason being the scope of the field worldwide.

So, she did as she was told. The admission was done. She completed two semesters worth of coursework and finally it was time to step into the research world. She scheduled meetings with five professors of her institute and finally one of them agreed to every single thing that she had in mind. This was still not enough. She finally asked the same questions to which she has been looking for answers for almost a decade now.

The questions were... A snake as an organism is a very limited species. It has infrared vision and hence only relies on temperature to see. It is practically deaf and only senses vibrations rather than hearing a sound. It smells through its tongue and is limbless! Out of more than three thousand known species of snakes, only two hundred and fifty plus species are venomous. Yet this organism is one of the most abundantly found species in almost every ecosystem of the world. It can survive extreme temperatures be it cold or hot and has survived two mass extinctions.

Her supervisor smiled and told her that she needs to find the answers to her questions herself. And then she suggested that the snake girl should work on the DNA of sea snakes.

After three years of vigorous research, fieldwork, collection of alive and dead snakes from multiple areas across the coastline of Pakistan, she became the first one in her country to conduct such research. She also became the first one in the world to conduct research on these particular set of genes that were the key to finding her answers.

Yes. She did it! She became the first Pakistani Muslim Woman to conduct research on DNA of sea snakes and she wears the titles proudly!