Life in Lavas

Lava flows have a highly variable structure and texture that provides diverse habitats for the settlement of life. This structure can support the comprehensive development of diverse and dynamic biological communities on the surface and interior. I will discuss the nature of these biological communities and explore the impact they have on the long-term evolution of lava flows becoming geobiodiverse entities, following an eruption. I will present my observations of the Xitle lava flow in Mexico City; lava-life interactions, combined with ecological processes, to map out the possibilities for biological cooperation within a geological framework.

My geobiological approach throughout this research, has allowed me to combine methods from both scientific disciplines as well as the use of coupled microscopies, which has given a deeper understanding of the morphological and physiological adaptations that rock-dwelling organisms have. This has given insights into rocks as an ecological niche and the communities that inhabit them as key players in the ecosystem dynamics.

This geobiodiversity is integral to volcanic landscapes and important for ecosystem services, environmental impacts, natural resources and biodiversity.

Bio graphy

Biologist from the UAM-Xochimilco. Master in Biological Sciences and PhD candidate Biological Sciences from UNAM. Twelve years of work in the Geopedregal project, with experience in the ecological restoration of the ecosystem established on the lava flow of Xitle volcano in Mexico City. She has taught at different levels, from high school to graduate students and participates in science communication. Her current research topic is the ecological interactions that occur in volcanic landscapes, specifically primary ecological succession, beginnings of soil formation and bioweathering. She seeks to share her view to the greater public of the microscopic world and the interconnection that surrounds us and that has guided the course of life on Earth.