TORRES DEL PAINE - CHILE

SOIL SCIENCES

- INTERACTION OF MICROORGANISMS, MINERALS, NUTRIENTS AND SOIL ORGANIC MATTER -

Much of our work is in pristine ecosystems, as a natural laboratory without much human influence, since this way, we can study the original processes how they are affected as the world warms. Our main line of research is related to carbon sequestration and microbial interactions in extreme areas. The impact of the microbiome and its relationship with the biogeochemical cycles in soils helps us to understand the formation of soil. We are interested in how microorganisms can tolerate the climate change in aerobic and anaerobic environments, and their mechanisms of mineral transformation in soil.

RESEARCH LINES

We belongs to Universidad de La Frontera interested in soil science, addressing topics such as soil carbon sequestration related with soil formation, biogeochemical cycles, geomicrobiology, redox biology in extreme environments. We study different soils type formation and their interaction with the climatic conditions in arid, temperate, polar and subpolar environments under forests, grassland, steppes, and agricultural crops. These studies allow us to detect characteristics patterns that are influenced by global warming affecting the mineralization processes in the soil.

KNOWS OUR WORK