Abbreviated CV Belén Romina Muñoz Rojas

ABOUT ME

I'm a Chilean Geologist, currently doing a PhD. In geological sciences at Santiago de Chile, in co tutelle agreement with Université de Lorraine (France). My research interest is focus on terrestrial geoforms as analogue surfaces to extraplanetary ambience like Mars, using high spectral remote sensing data and fieldwork tools. In my experience, I have worked in multidisciplinary groups mostly in research areas such as Archaeology, tectonics and geophysics within the Atacama Desert. My highest skills are related to mapping, geodesic and gis science.

EDUCATION

2020-2019 Universidad Católica del Norte
Title of Geologist (with honors) and Baschelor's Degree in Geological Sciences.

2012-2020 Universidad Católica del Norte (UCN)
Undergraduate thesis developed in Andean Tectonics and Structural geology using fieldwork and Seismic Data through Move and Structure Solver Software, to study the interactions between thin and thick deformation in Punta Negra salt flat - Imilac basin, northern Chile, Antofagasta.

ACADEMIC EXPERIENCE

2022

Lecturer assistant: Geological information system for Geology application

Professor in charge: Dr. Matias Taucare, UCH.

2020
Field Assistant: Field Geology II, 11 days of fieldwork, Inca de Oro, Atacama Region, Chile.
Professor in charge: Dr. Rodrigo Riquelme, Dr. Christopher López., UCN.

2019
Field Assistant: Field Geology I, 9 days of fieldwork, Imilac salt flat, Antofagasta region, Chile.
Professor in charge: Dr. Fernando Martinez Ortiz, UCN.

Field Assistant: Field Geology II, 1 day of field work in Sierra del Cobre logistics, Antofagasta.
Professor in charge: Dr. Arturo Jensen; Dr. Rodrigo Riquelme, UCN.

Teaching assistant in Professional Elective “Advance structural Geology” Universidad Católica del Norte, Antofagasta, Geological sciences department.

2016–2015

Twice Teaching assistant of Macroscopic Petrography, Geology, Universidad Católica del Norte. Professor in charge: Dr. Rodrigo González/ Dr. Pablo Salazar.

CONTRIBUTIONS TO SCIENTIFIC CONFERENCES

Muñoz, B., Flahaut, J., Larrea, P., Ford, M., González-Maurel, O., Godoy, B. 2022. Testing rheological models on Central Andean volcanic geoforms as analogues for Mars. Europlanet science Congress 2022 (EPSC), Granada, España (18-23 Septiembre, 2022).

Muñoz, B., Larrea, P., Flahaut, J., Ford, M., Godoy, B. 2022. Resultados preliminares del estudio de geoformas volcánicas en los Andes Centrales (21°-24°S) y su implicancia en el volcanismo de Marte. I Congreso de Postgrado, Facultad de Ciencias físicas y matemáticas, Universidad de Chile.

Martínez, F., López, C., Parra, M., González, R., **Muñoz, B**. The Inner Forearc of the Central Andes (21°-23°S): Structural Styles, Age of Uplift and its Relation with Basement Weakness Zones. August 2020 Conference: AAPG SYMPOSIUM. ANDEAN BASINS.

SCIENTIFIC ARTICLES

Martínez, F., Parra, M., Gonzalez, R., López, C., Ana, P., **Muñoz, B**., Robledo, F., Sobel, E., y Glodny, J. 2022. Deciphering the Late Paleozoic–Cenozoic Tectonic History of the Inner Central Andes Forearc: An Update from the Salar de Punta Negra Basin of Northern Chile. Front. Earth Sci. 9:790526.doi: 10.3389/feart.2021.790526.

Martínez F, **Muñoz B**, López C., González R., Parra M., Riquelme AAPG SYMPOSIUM. ANDEAN BASINS, R.2020.Complex Basement-Involved Contractional Structures in the Pre-Andean Basins of Northern Chile: A Review of Field and Seismic Data". Tectonics. doi.10.1029/2020TC006433.

López., Martínez, F., Ventissete, C., Bonini, M., Montanari, D., **Muñoz, B**., Riquelme, R. 2020. East-vergent thrusts and inversion structures: An updated tectonic model to understand the Domeyko Cordillera and the Salar de Atacama Basin transition in the western Central Andes. Journal of South American Earth Sciences 103:102741. DOI: 10.1016/j.jsames.2020.102741.

Martínez, F., Kania, J., **Muñoz, B**., Riquelme, R., López, C. 2019.Geometry and development of a hybrid thrust belt in an inner forearc setting: Insights from the Potrerillos Belt in the Central Andes, northern Chile. https://doi.org/10.1016/j.jsames.2019.102439. Journal of South American earth Sciences.DOI:10.1016/j.jsames.2019.102439.

LITERATURE

Martínez, F., **Muñoz, B**., Arriagada, C., Bascuñán, S. 2022. Interaction between inverted normal and reverse faults in the inner forearc of Central Andes: an example from Salar de Atacama basin en G. Zamora y A. Mora (Eds.). Andean structural styles, a seismic Atlas, Chapter 38. 1st Edition. Editorial Elsevier.

PROFESSIONAL EXPERIENCE

2021-2024
Phd student in Geology, Geological sciences at Universidad de Chile and Université de Lorraine, France. Subdisciplines: Volcanology and Remote sensing.

2021
Lecturer at Universidad Austral de Chile for the Archaeological school, teaching classes in "Análisis del territorio" course using Geographical Information Systems – QGIS 3.18.

Associated-Professional at Research project ANID-FAPESP AÑO 2020, CÓDIGO 2019/13349-8" Tectono-stratigraphic evolution of inter-montane basins related to forearc tectonic settings using the Chilean Pre-Andean Depression of the Central Andes as a case study.

2019
Professional Internship at Research Center CEAZA "Centro de estudios avanzados en zonas áridas", La Serena, Chile, at the Geosciences, Hidrology and Glaciology Department.

GRANTS

1.2022 Eiffel Excellence scholarship by Eiffel Programm, France, Université de Lorraine.
2.2021 Beca de Doctorado Nacional ANID, Chile, Universidad de Chile.
3.2018 Prácticas Santander Scholarship, Chile.

LANGUAGES

1. English (Fluent–writing and speaking Advance, **TOEFL certification** 80/120,2020)
2. Spanish (Native)

TOOLS & SKILLS

1. "Sistemas de Información territorial" certified by Instituto de Políticas Públicas UCN 2020.
2. Softwares **Arcgis, Qgis, Adobe Illustrator, He/Fty, ENVI 5.3.**
3. Seismic and geophysics softwares: **Structure Solver, Move, Geomate.**