

Dr. Sara E. Acevedo

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Assistant Professor. Soil scientist, Doctor of Engineering Sciences and Master of Soils and Biogeochemistry. Combining lab experimentation, field trips and programming, I try to disentangle the soil-water-environment relationship in the urban and natural context.

Education

Pontificia Universidad Católica de Chile, Doctor of Engineering Sciences	2016-2023
University of California-Davis, Master of Soils and Biogeochemistry	2012-2014
Pontificia Universidad Católica de Chile, Chemist degree	2003-2009

Teaching

Pontificia Universidad Católica de Chile, Statistical methods for natural resources (R classes)	2024
Pontificia Universidad Católica de Chile, Environmental Biophysics	2023- 2024

Outreach

RLadies - Chile, R teaching lecturer and event organizer	2018 - present
RLadies - Global, Code of Conduct Team	2024 - present
R package maintainer and developer, {infiltrdiscR} and {ggsoiltexure}	

Publications (2021 - present)

For a complete list, check [Google Scholar](#) or [ORCID](#)

Acevedo, Sara E, Cristina P Contreras, Carlos J Ávila, and Carlos A Bonilla. "Testing the Integral Suspension Pressure Method for Soil Particle Size Analysis Across a Range of Soil Organic Matter Contents." *Int. Agrophys* 35, no. 4 (2021): 357-63.

Acevedo, Sara E, Sofia I Martínez, Cristina P Contreras, and Carlos A Bonilla. "Effect of Data Availability and Pedotransfer Estimates on Water Flow Modelling in Wildfire-Affected Soils." *Journal of Hydrology* 617 (2023): 128919.

Acevedo, Sara E, Hannah Waterhouse, Felipe Barrios-Masias, Janina Dierks, Leah LR Renwick, and Timothy M Bowles. "How Does Building Healthy Soils Impact Sustainable Use of Water Resources in Irrigated Agriculture?" *Elem Sci Anth* 10, no. 1 (2022): 00043.

Giraldo, Carolina V, Sara E Acevedo, Cristina P Contreras, Fernando Santibáñez, Esteban Sáez, Francisco J Calderón, and Carlos A Bonilla. "Effects of Soil Heating Changes on Soil Hydraulic Properties in Central Chile." *Geoderma* 449 (2024): 117013.

Martínez, Sofia I, Cristina P Contreras, Sara E Acevedo, and Carlos A Bonilla. "Unveiling Soil Temperature Reached During a Wildfire Event Using Ex-Post Chemical and Hydraulic Soil Analysis." *Science of The Total Environment* 822 (2022): 153654.

- Melej, María Jesús, Sara E Acevedo, Cristina P Contreras, Carolina V Giraldo, Tessa Maurer, Francisco J Calderón, and Carlos A Bonilla. "Changes in Macroaggregate Stability as a Result of Wetting/Drying Cycles of Soils with Different Organic Matter and Clay Contents." *Geoderma* 448 (2024): 116965.
- Vega, Alejandra S, Guillermo Arce, Javier I Rivera, Sara E Acevedo, Sonia Reyes-Paecke, Carlos A Bonilla, and Pablo Pastén. "A Comparative Study of Soil Metal Concentrations in Chilean Urban Parks Using Four Pollution Indexes." *Applied Geochemistry* 141 (2022): 105230.

Conference papers (2021 - present)

For a complete list, check [Google Scholar](#) or [ORCID](#)

- Acevedo, Sara E, and Alejandra S Vega. "Ggsoiltexture: An r Package for Plotting Soil Textural Data." In *Global Symposium on Soil Information Data*, Vol. 2024. 1, 2024.
- Acevedo, Sara E, Alejandra S Vega, Pablo A Pastén, Raquel Jiménez, Ricardo Trufello, and Sandra Cortés. "COVID-19 Incidence and Mortality in Chile: Socio-Environmental Indicators as Measurement of Health Environmental Justice." In *ISEE Conference Abstracts*, Vol. 2024. 1, 2024.
- Acevedo, Sara, Alejandra Vega, Pablo Pastén, and Carlos Bonilla. "A Citywide Analysis of Urban Soil in Parks: Metals and Organic Matter Concentration and Homogeneous Infiltration Capacity." Copernicus Meetings, 2024.
- Contreras, Cristina P, Sara E Acevedo, and Carlos A Bonilla. "Experimental Setup for Measuring the Entire Soil Hydraulic Characteristics Curves at Laboratory Scale." In *ASA, CSSA, SSSA International Annual Meeting*. ASA-CSSA-SSSA, 2021.
- Olmos, Carolina V Giraldo, Sara E Acevedo, Cristina P Contreras, Maria J Melej, and Carlos A Bonilla. "Exploring the Temperature Dependence of Soil Organic Matter Content and Cation Exchange Capacity Under Controlled Conditions." In *ASA, CSSA, SSSA International Annual Meeting*. ASA-CSSA-SSSA, 2023.
- Olmos, Carolina V Giraldo, Sara E Acevedo, Diego Onna, and Carlos A Bonilla. "Infiltrodiscr: A Way to Bring Soil Science Closer to Open Science." In *ASA, CSSA, SSSA International Annual Meeting*. ASA-CSSA-SSSA, 2023.
- Vega, Alejandra S, Sandra Cortés, Sara Acevedo, and Pablo A Pastén. "Urban Environmental Geochemistry in Metal Mining Districts: Street Dusts as a Screening Tool." In *Goldschmidt 2023 Conference*. GOLDSCHMIDT, 2023.