

Depth profiles of soil temperature, moisture, and concentrations of CO2 and O2

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 (https://www.youtube.com/watch?v=rw4RERFchns)



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Abstract

This data is an on-going collection of soil temperature, soil moisture, soil CO2 concentration, and soil O2 concentration starting in October 2021. We have installed sensors and probes at different soil depths across landscapes in five of the former Critical Zone Observatory locations (see the document named "sensor location"). Soil temperature and moisture are measured using Acclima SDI-12 sensors. Soil CO2 concentrations are measured using Eosense CO2 probes (switching to Vaisala GMP343 and GMP251 in 2023). Soil O2 concentrations are measured using Apogee SO-110-L-10 soil oxygen sensors. This dataset, along with our measurements of soil geomicrobiology and biogeochemistry (available in EarthChem), will help us understand the role of microbes as drivers of Critical Zone biogeochemistry and soil formation.

Subject Keywords

Soil CO2 (/search/?subject=Soil%20CO2)

Soil O2 (/search/?subject=Soil%20O2)

Midslope (/search/?subject=Midslope)

Soil temperature (/search/?subject=Soil%20temperature)

Soil moisture content (/search/?subject=Soil%20moisture%20content)

Toeslope (/search/?subject=Toeslope)

Critical Zone (/search/?subject=Critical%20Zone)

Ridge (/search/?subject=Ridge)

Season (/search/?subject=Season)

Coverage

Spatial

 Coordinate System/Geographic Projection:
WGS 84 EPSG:4326

 Coordinate Units:
Decimal degrees

Place/Area Name:
Reynolds Creek Experimental Watersheds, Providence Creek Catchment, San Joaquin Experimental Range, Santa Catalina Mountains, Luquillo-ICACOS, Luquillo-EL VERDE, Calhoun Experimental Forests

North Latitude
49.7360°

East Longitude
-64.4238°

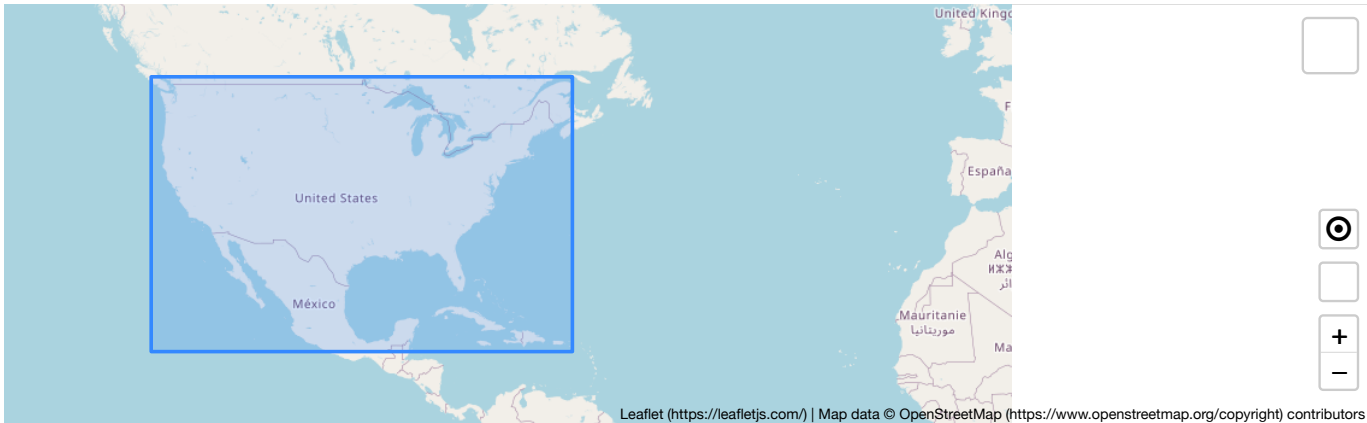
South Latitude
16.9898°

West Longitude
-126.1230°

Temporal

 **Start Date:** 11/15/2021

 **End Date:** 11/13/2022



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Credits

Funding Agencies

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