Accumulation and permanence of soil C across a chronosequence in a California desert ecosystem

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Arid and semi-arid ecosystems comprise 30-40% of the Earth’s biomes and 32% of California’s landscape, however, little is known concerning the dynamics of individual SOC throughout the soil profile. By evaluating %C and composition of soil inorganic and organic pools across a California desert chronosequence, I will identify the patterns, accumulation rates, and permanence of soil C. Results from this research will provide the first complete inventory of SIC and SOC pools for a cold desert, inform ecosystems managers of C dynamics in primary successional and climax shrubland communities, and used to create a terrestrial biogeochemistry model forecasting future C sequestration in arid ecosystems.