

Leland F Sutter JR

1226 E Elm St #1
Tucson, AZ 85719
Phone: 520.730.9151
E-mail: lelandsutter@email.arizona.edu

Objective

Further my knowledge in the area of arid and semi-arid land ecosystem dynamics

Work History

May 2015 - Present, Hydrologic Technician, USDA - ARS

- Assist with setup, maintenance, and monitoring of Hydraulic Redistribution project at the Santa Rita Experimental Range and Charleston Mesquite sites. This includes sap flow sensors, tenting techniques with LI-7500, soil respiration with LI-8100, photosynthesis measurement with LI-6400, and processing of data with MATLAB. Lead presenter on tenting, LI-6400, and LI-8100 data
- Work with University of Southern California installing soil moisture sites at Walnut Gulch Experimental Watershed and assisted with NASA SMAPVEX15 project
- Various projects involving soil and plant measurements

January 2014 - May 2016, Undergraduate Research Assistant, Biosphere 2

- Built Boxes for installation containing data loggers, CO₂, oxygen, and soil moisture/temperature sensors for Critical Zone Observatory (CZO) research group at Mt. Bigelow
- Gather field data using various instruments, including LI-6400 and LI-8100 at various field sites
- Process data using MATLAB, HOBOWARE, and LICOR programs
- Training using an unmanned aerial vehicle (UAV) to take field measurements with MCA12 and ADC Micro tetracams, and infrared camera
- Continued monitoring and presentation of field data from CZO project
- Set-up of independent study involving soil CO₂ flux at Catalina CZO sites

June 2014 - December 2014, Student Worker, Dr. Steve Smith Lab

- Assisted with installation of field cameras on Tumamoc Hill and monitored throughout course of summer project
- Monitored own buffleggrass site throughout summer
- Assisted with seeding and maintaining of numerous strains of experimental alfalfa in greenhouses

May 2014 - September 2014, Student Worker, Dr. Jeff Fehmi Lab

- Harvested, weighed, and compiled data for three greenhouses involved with research of Lehmann Love grass
- Maintained greenhouse project involved with research of Lehmann Love grass
- Seeded Field plots for research of mine reclamation

June 2014 - 2016, Student Worker, Dr. Steve Archer Lab

- Periodically assist with data collection using ground penetrating radar to study woody encroachment at the Santa Rita Experimental Range

June 2006 - July 2012, Apache Helicopter Crew Chief, US Army

- Squad Leader, Phase Team Leader, Maintenance Team Leader, and Line Company Crew Chief
- Troubleshoot and repaired nearly every system on the Apache helicopter, both mechanical and electrical
- Developed improved plans for parts inventory, oil storages, and maintenance procedures
- Applied field experience with deployment to Iraq in 2008 and Afghanistan in 2011

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Education

2016 - Present

MA Geography, University of Arizona

2016

BS Natural Resources with emphasis in Rangeland Ecology and Management, University of Arizona, Cum Laude

Papers, Posters, and Publications

Multiple Approaches to Measure Mesquite - Grass Dynamics in a Semi-arid Grassland in Southern Arizona. Sutter L., Barron-Gafford G. (2016): Poster presented at 2016 University of Arizona Institute of the Environment Fall Fest, Tucson, AZ, 20 Sep.

An Important Aspect of Soil Carbon and Water Fluxes in Desert Environments. Sutter L., Sanchez-Canete E., Barron-Gafford G. (2016): Poster presented at 2016 University of Arizona Arid Lands Poster Session, Tucson, AZ, 27 Apr.

Complex terrain in the Critical Zone: How topography drives ecohydrological patterns of soil and plant carbon exchange in a semiarid mountainous system. Barron-Gafford G., Minor R., Heard M., Sutter L., Yang J., Potts D (2015): Abstract H23J-01 presented at 2015 Fall Meeting, AGU, San Francisco, CA, 14-18 Dec.

Awards/Activities

- 1st Runner-up University of Arizona Institute of the Environment Graduate Student Poster Contest - 2016
- Richard A. Harvill Fellow: 2016 - 2017
- President - Tierra Seca: University of Arizona chapter of Society for Range Management: 2015 - 2016
- SNRE Student Leadership Award: 2016
- Undergraduate Range Management Exam Team: 3rd High Team 2016
- VNR Recruitment - Alpha Gamma Rho - Alpha Pi Chapter 2015 - 2016
- Public Relations Chair - Alpha Gamma Rho - Alpha Pi Chapter 2014 - 2016
- Alpha Gamma Rho Scholarship Recipient 2015 - 2016
- Cowden E Ray Scholarship 2015 - 2016
- Parker, William & Alice Scholarship 2015 - 2016
- AZ Section: Society for Range Management Leadership Award 2015 - 2016
- Vice President - Tierra Seca: University of Arizona chapter of Society for Range Management 2014 - 2015
- AgCat Open Student Scholarship Endowment 2014 - 2015
- Ervin M. & Marcell E. Schmutz Memorial Range Management Scholarship 2014 - 2015
- E. Ray Cowden Scholarship (SNRE) 2014 - 2015
- University of Arizona Rugby Team 2012 - 2013
- Student Veterans of America Club Philanthropic Chair Spring 2013
- Lifetime Member of the Veterans of Foreign War

* References are available on request