Curriculum Vitae
Spring 2023

Samuel G. Zuckerman

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EDUCATION

University of New Hampshire Durham, NH
PhD in Natural Resources and Earth Systems Science (NRESS) *expected May 2024*
Advisor: Dr. Heidi Asbjornsen

University of Vermont Burlington, VT
Honors College, Rubenstein School of Environment and Natural Resources *May 2016*
BS in Environmental Sciences

PUBLICATIONS AND PRESENTATIONS

Stratton, C.A., Hodgdon, E.A., **Zuckerman, S.G.**, Shelton, A.M., & Chen, Y.H. (2018). A Single Swede Midge (Diptera: Cecidomyiidae) Larva Can Render Cauliflower Unmarketable. *Journal of Insect Science, 18(3).*

Zuckerman S. "Tree responses to drought in the Northeast", University of New Hampshire NREN spring seminar series. March 2020.

Zuckerman S, Asbjornsen H, D'Amato A, Vadeboncoeur M, McIntire C, Wason J, Frost T. Assisted Migration and Drought in New England: Lessons Learned and Future Directions. Poster presented at: New England Society of American Foresters Annual Meeting; South Portland, ME. March 2022.

Zuckerman S, Asbjornsen H, Vadeboncoeur M, Brum M, Petrovick S, Chen E, Frost T, McIntire C. Simulating Drought in New England: Tree anatomical and physiological responses after 6 years of experimental drought. Poster presented at: Gordon Research Seminar; Newry, ME. June 2022.

Zuckerman S, Asbjornsen H, Vadeboncoeur M, McIntire C, Wason J, D'Amato A, Ehmett J. Identifying species and ecotypes suitable for assisted migration in the Northeast U.S. Poster presented at: Forest Ecosystem Monitoring Cooperative; Burlington, VT. December 2022.

TEACHING EXPERIENCE

Dendrology TA *Fall 2019, 2020, 2022*
Principles of Sustainability TA *Spring 2020, 2021*

SKILLS, CERTIFICATIONS, AND INTERESTS

Equipment frequently used: LICOR Li6400, PMS pressure chamber, VAPRO osmometer, WP4C dewpoint potentiometer, SC-1 leaf porometer, LAI220C, Campbell HydroSense probes, Teros10 water content sensors

Software: R, JMP, GIS, Excel, ImageJ
microphotography, Microsoft Access/Office, conversational Spanish

Certifications:

Wilderness First Aid, Advanced SCUBA

Interests:

Skiing, rock climbing, surfing, backpacking, woodworking,

RELEVANT EXPERIENCE

Great Basin Institute Las Vegas, NV
Botany and Soils Field Crew Lead *2/19/19 to 8/1/19*

-Strategically organized backcountry trips for a three-person crew to fulfill research goals for the season
-Collected quality assured data for quantitative and qualitative vegetation sampling, soil sampling, and rangeland indication—using the BLM developed AIM methods alongside supplemental protocols
-Performed crew calibration, quality control, and quality assurance using Microsoft Access.
-Coordinated and managed crew safety and logistics, scheduling, database management, and reporting

USGS, Yosemite, Sequoia & Kings Canyon National Parks, Tahoe National Forest Three Rivers, CA
Biological Science Technician GS-05 *5/27/18 to 11/9/18*

-Collected *Pinus albicaulus* cores and needles throughout the Sierra Nevada backcountry
-Processed thousands of needle samples in the laboratory for further isotopic and genetic testing
-Improved field and laboratory protocols and contributed to conversations regarding field crew safety
-Collaborated with government agencies and academic institutions

NPS, Yosemite, Sequoia & Kings Canyon National Parks Three Rivers, CA
Biological Science Technician GS-05 *6/5/17 to 10/13/17*

-Assessed high elevation forest demographics for the Sierra Nevada Inventory & Monitoring program
-Identified beetle galleries including *Dendroctonus* and *Ips*
-Observed and recorded detailed plot information including route finding, conditions, and anomalies
-Participated in sugar pine and oak research projects requiring quick comprehension of new protocols

University of Puerto Rico Río Piedras San Juan, Puerto Rico
Field Assistant *1/16/17 to 3/6/17*

-Collected comprehensive data to assess the provision of ecosystem services by urban trees
-Identified tropical trees to species and measured tree diameter, height, and health in the field
-Communicated with residents the importance of trees in urban environments

USGS, Sequoia Kings Canyon National Park Three Rivers, CA
Biological Science Technician GS-05 *6/6/16 to 9/30/16*

-Assessed 5-needled pines for presence of white pine blister rust symptoms and bark beetle
-Relocated plots deep in the backcountry that had not been revisited in over 20 years
-Identified pathogen alternative host vegetation to species level
-Entered and reviewed data using Microsoft Access

Insect Agroecology and Evolution Lab Burlington, VT

Research Technician *9/1/14 to 5/12/16*

-Developed novel laboratory techniques for artificial larval infestations
-Conducted independent research projects in insect biology and ecology
-Streamlined laboratory procedures for rearing an insect colony
-Contributed microscopic imagery and videography of larval development
-Presented findings at the University of Vermont undergraduate research conference

UVM Watershed Alliance Burlington, VT

Educator *9/14/15 to 11/6/15*

-Practiced science communication skills through hands-on instruction
-Implemented techniques to monitor the biological, physical, and chemical properties of streams
-Acted as a watershed steward by applying best management principles (i.e. gear disinfection)