

Eli Siebach Hartung

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Education

Butler Senior High School

June 2016

Utah Valley University, UT

Majoring in Botany

August 2016 – current

GPA: 3.90

Professional Experience

Working under Dr. Susan Meyer with her conservation work at the Rocky Mountain Research Station

Working under her since August 2018

- Work with *Astragalus holmgreniorum*
 - Collected, processed, and cataloged seed collections from each studied population
 - Mixed soil specific to the species for greenhouse germination
 - Introduced sprouts and seeds into new suitable habitats
- Work with *Arctomecon humulis*
 - Collected seeds for reproductive output studies
 - Monitor existing populations using drone imagery
 - These drone studies are the first look into some of these unstudied populations
 - FAA licensed drone pilot
 - Used various computer software to compile population data
 - Proficient in ArcGIS and Pix4dmapper
- Work with *Astragalus amphularioides*
 - Help monitoring last existing populations
 - Help in seed and soil collection

Botany Lab Assistant

January 2019-May 2019, August 2020- current

- Prepped materials for various botany lab classes
 - Cleaned up labs and materials afterwards
- Maintained records of plants and seeds for the schools native garden
- Drove students to study-sites for field courses

Research Experience

Student Researcher, Rocky Mountain Research Station

October 2019- Present

- Microsite Characterization of *Arctomecon humulis* Seedlings
- Currently leading my own project on the recruitment microsites of *Arctomecon humulis* seedlings
 - Studied habitat characteristics at the emergence point, square foot plot, and population levels
 - Studying plots across three populations based on soil cover type, topology, disturbance, seedling size and other characters
 - Presented preliminary data at the Annual Utah State BLM meeting
 - Aiming to present findings in a future publication
 - Hope this research will help in conservation efforts for this plant

Harris Lab Student Researcher, Utah Valley University

October 2020- Present

- Worked under Dr. Jim Harris at UVU sequencing *Draba* specimens he collected
 - Compared unknown specimens to 2 other species using the ITS gene
 - Cleaned and aligned sequences
 - Looking into whether these collections represent a new species or an range extension of an existing one

Herbarium Student Curator, Utah Valley University Herbarium (UVSC)

August 2019- Present

- Worked under Curator Erin Riggs in various Herbaria curating techniques
 - Mounting

- Accessions
- Cleaning
- Organization

Mycology Lab Student Researcher, Utah Valley University

August-December 2018

- Worked in the labs at UVU under Dr. Geoffrey Zahn using lab techniques including:
 - Aseptic culture techniques
 - DNA extraction
 - PCR
- Designed and performed a study on various yeast strains and their effect on subjective bread quality
- Lab safety certified

Teaching Experience

Majors' Biology I Teaching Assistant for Dr. Wayne Whaley

January 2017-May 2018

- Taught weekly review sessions
- Created practice exams and held exam review sessions
- Helped with miscellaneous grading assignments

Introduction to Grasses Teaching Assistant for Erin Riggs

January 2020-May 2020

- Helped students dissect and identify various diagnostic characters of different grasses
- Helped grade various assignments
- Stand-in lectured when Erin Riggs was unavailable

Presentations

2019 Dwarf Bear Poppy Microsite Characterization. Utah State Annual Bureau of Land Management Meeting. St. George, Utah.

2018 Making Better Bread: Effects of Yeast Strains on Bread Quality. UVU Undergraduate Research Symposium. Orem, Utah

2018 Gardening Using Native Plants to Reduce Water Usage. UVU Sustainability Days. Orem, Utah

Leadership and Involvement

Botany Club at Utah Valley University

August 2018-2019 Botany Club Secretary

- Maintain records of membership and event scheduling
- Plan fundraising opportunities
- Represented club in University conservation and green days presenting on importance of native flora in water conservation and in maintaining the fragile ecosystems of Utah
- Planned and coordinating a collaborative event with the BYU fine arts program in collecting and using native flora as a source natural clothing dyes

August 2019-2020 Botany Club President

- Planned events to fulfil my "Education, Conservation, and Appreciation" platform
- Hosted monthly talks from professional botanists in varying fields to inform students of areas of research and career opportunities
 - Talks given by professionals working in research, herbaria, greenhouse management, rangeland management as well as others
- Hosted monthly conservation based events
 - Cleaned trails for popular hiking areas, helped plant and weed the UVU native garden, presented at the UVU sustainability day as well as others
- Hosted monthly events to encourage an appreciation for the natural world around us
 - Hiked Mt. Timpanogos, observed the annual Perseid's meteor shower, attended the Antelope Island Annual Bison Round-up as well as others
- Planned and led various fundraising events

August 2020-current Botany Club treasurer

- Currently in charge of club funds as well as membership fees and paying for events and supplies

Utah Valley University Plant ID Team

Member since august 2018

- Studies to identify 200 key rangeland plants (100 grasses and 100 forb/woody plants) and compete to ID them based on identifying characters
- Placed 5th in the 2018 Utah State Society for Rangeland Management Annual Competition
- Placed 2nd in the 2019
- Placed 48th in the 2020 international competition
- Currently studying for the 2020 Utah State Competition and acting as the student coach for the UVU team

Volunteer for the Wasatch Elementary School Garden Club

Seasonal help since August 2018

- Basic gardening work to maintain garden such as pruning, weeding, etc
- Teaching elementary students about the different water needs of different plants and efficient and conservational irrigation
- Teaching students the value and importance of native gardening
- Practiced and taught students about seed collection, identification, and storage
- Taught students about the different planting needs of different seeds and when to plant specific seeds seasonally

Professional Affiliations

Botanical Society of American

Utah Native Plant Society

Awards

2020 Kimball T. Harper Botany Endowed Scholarship (\$3,000)

2020 Dean's Merit College of Science Scholarship (\$1,817)

2020 Grant H. and Pauline C. Elliott Endowed Scholarship (\$790)