

Summary

Field-work focused college senior passionate about ecosystem restoration and sustainable agriculture.

Education

Dickinson College, Carlisle, PA. Bachelor of Science

GPA: 3.89 / 4.0. Expected graduation May 2019

Majors: Environmental Science and Biology

Minor: Chemistry

Courses: Natural History of Vertebrates | Invertebrate Zoology | Plant Systematics | Aquatic Ecosystem Management | Wildlife Ecology | Accelerated General Chemistry | Organic Chemistry | Analytical Chemistry | Environmental Chemistry and Toxicology | Agroecology Investigations | Plant Physiology | Conservation Biology

Work Experience

Dickinson College Organic Farm

June 2016 - present

- Student Farmer – All aspects of farm-based labor. Experience with vegetable production, livestock care and farm infrastructure work. Able to complete demanding manual labor in inclement weather conditions. Includes full time during summers and part time during school years.
- Student Researcher – Self designed project on biogas generation and effluent utilization. Full time during summer

Dickinson College Rock Wall

August 2016 – December 2017

- Rock Wall Monitor – Train and ensure safety of climbers, maintain wall status, set climbing routes

Friday Harbor Laboratories, University of Washington

June 2017-August 2017

- Student Researcher – Collaborated on a lab-intensive experimental with a Professor through an immersive REU

Dickinson College, First-Year Mentor/ Pre-Orientation Leader

August 2016 – September 2017

- Organized and led 4 day-long backpacking trips. Mentored students adjusting to college. Certified in WFA and CPR from July 2015 until March 2018.

Volunteering

Appalachian Mountain Club Gorham, NH: Leadership Trail Crew – Crew Member

Summer 2013, 2014

John's Island, SC: Community Service Trip (Dickinson College) – Crew Member

March 2015

New Orleans, LA: Community Service Trip (Andover Academy) – Crew Member

March 2016

Research Experience

Assessing climate change's impact on bloom times of Pine Hill Arboretum wildflowers

January 2018 – Present

- Dickinson College, Carlisle PA. Department of Biology. Student-Faculty Collaborative Project.
- Surveyed an arboretum repeatedly from February to June 2018 to observe first bloom dates for native wildflowers. Identified species using naturalist guides and compared bloom dates to historical loggers

Chemical Analysis of Nutrients in Crops

September 2018 – December 2018

- Dickinson College, Carlisle PA. Department of Chemistry. Independent Research Project.
- Collected samples from effluent bioassays, prepared solutions to isolate a variety of vitamins and nutrients from plant tissue, collected data through a variety of chemical analyses including HPLC and UV-Vis.

Expansion of Biogas Systems and Utilization of Effluent on the Dickinson College Farm

June 2018 – August 2018

- Dickinson College Farm, Boiling Springs PA. Student-Faculty Collaborative Project.
- Plumbed biogas digesters, maintained feeding and waste disposal operations, constructed technology to facilitate biogas usage, conducted studies on digester chemistry and effluent's impact on compost generation/plant growth.

Publications

Lee, M., & St. Angelo, S. Biogas digester effluent as fertilizer for organic farming and its effect on plant growth and vitamin content [abstract]. In: American Chemical Society; 2019 Mar 31-Apr 4; Orlando, FL. Abstract 3112792.

Lee, M., & Steiman, M. Biogas production at Dickinson College [abstract]. In: Pennsylvania Association for Sustainable Agriculture; 2018, Feb 7-10; State College, PA.

Awards/Grants

- Benjamin Rush Merit-based Scholarship: **\$60,000** over four years, March 2015
- Sustainability Education Fund Grant: **\$5700** for Improving Utilization of Biogas and Digester Effluent for Sustainability at the College Farm, Student Faculty Research Project, April 2018
- Kenderdine Travel Award: **\$1600** for travel to and from SICB/ACS Conferences January 2018
- SEPSACS Travel Award: **\$300** for travel to and from ACS Conference January 2019
- Society of Women Environmental Professionals: **\$200** for second place in poster contest April 2018
- Jam Space: **\$1500** innovation grant to improve musical opportunities at the Jam Space March 2016
- Baird Sustainability Fellow: Recognized as campus leader in sustainability Spring 2019
- Deans List: Achieve a GPA higher than 3.70 for a semester December 2015 - Present

Skills

Biology: Mark/Recapture, Transect/Quadrat Surveying, Microscopy, Study Skin Construction, Dichotomous Key usage, Macroinvertebrate Sampling and ID, Hardwood Tree ID, Wildflower ID, Vertebrate ID, Microscopy

Chemistry: Pipetting, HPLC, UV-VIS, Compound Recrystallization, AA Spec

General: Microsoft Office, imageJ, Prism, Data Analysis

Campus Experience

Sustainable Investment Group: Researcher | Dickinson College Organic Farm: Farmer | Center for Sustainable Living: Resident | Environmental Science Majors Committee: Member | Bicycle Advisory Committee: Member | Jam Space: Coordinator | Dickinson College Radio: DJ | Rock Climbing Team: Member | Arts Collective: Member

Interests sustainable living, running, biking, backpacking, playing music, cooking

References

Matt Steiman (Asst. Farm Manager, Research Advisor): steimanm@dickinson.edu. 717.245.1969

Prof. Sarah St. Angelo (Assoc. Prof. Chemistry, Research Advisor): stangels@dickinson.edu. 717.254.8957

Prof. Tony Pires (Prof. Biology, Research Advisor): pires@dickinson.edu. 717.245.1632