Samuel E. Reed

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OBJECTIVE

Research technician position working on a project investigating ecological and evolutionary principles using experimental microbial and computational systems prior to applying to Ph.D. programs in Evolutionary Ecology. Ultimately, I would like to pursue a career as a research faculty member in the field of Evolutionary Ecology.

EDUCATION

University of Washington, Seattle WA Bachelor of Science, Biology, GPA 3.64 - Expected June 2013. Completed 15 credits of undergraduate research.

Minor, Norwegian Language.

EXPERIENCE

Undergraduate Researcher, Kerr Lab, University of Washington. January 2012 - Present.

- Phenotypic Plasticity Projects:
 - Collaborated with other lab members to trouble-shoot a novel experimental system using the yeast *S. cerevisiae*.
 - Designed and executed a project exploring the *de novo* evolution of phenotypic plasticity using a clustering phenotype of *S. cerevisiae*.
 - Collaborated with a three person working group to create a computational model of the experimental system.
 - Currently designing a second project using single-celled *S. cerevisiae* exploring the evolution of anticipatory plasticity in response to an environmental cue.
 - Implemented a computational model to inform the design of the second experiment.

Peer TA, BIOL 481, University of Washington. September 2012 - December 2012.

- Biology 481, 'Experimental Evolutionary Ecology', is an upper division lab course that gives students experience in experimental evolution and explores open questions in the field. The class website can be found here: http://depts.washington.edu/kerrpost/Bio481/HomePage
- Assisted the Graduate TA during weekly 2 hour lab sessions.

- Mentored two lab groups throughout the quarter. Mentoring included help with execution of lab protocols and data collection, analysis of the data, writing of lab reports, designing an experiment with AVIDA ED, and the drafting of a 20 minute final presentation.
- Held office hours with students outside of class time.
- Prepared bacterial cultures for use in class labs.

Field Hand, Growing Things Farm, Carnation WA. (June 2011 - September 2011).

- Growing Things Farm is a 30 acre organic farm outside Carnation, WA.
- Field Hand duties included:
 - Working 9-12+ hour days under adverse and inclement weather conditions.
 - Planting, hand-weeding, irrigation, and transplanting of diverse field crops from winter and summer squash to lettuce to potatoes and beans.
 - Harvesting and processing of crop plants for market and community supported agriculture (CSA) shares.
 - Tending to livestock, including poultry (both laying and meat chickens as well as turkeys), pigs, cattle, and dairy goats.
 - Setting up and managing a successful farmer's market stall at the University District and Duvall farmer's markets.
- Worked closely with a crew of 8 other field hands.
- Lived in a tent for the duration of the position.

Member, Real Food Challenge University of Washington Chapter. (Spring 2011 - Autumn 2012).

- Real Food Challenge (RFC) is a national organization of students that is trying to change the food purchasing policies of the nation's universities. The national goal is to shift 20% of university spending away from non-sustainable sources to more local, sustainably, humanely, and justly grown sources by 2020.
- Worked with a team of other students to research the UW's food purchasing practices in collaboration with UW Housing and Food Services (HFS).
- Audited two 6 month period budgets for HFS in order to determine the amount of 'real' food (local, sustainable, humane, and just food) HFS purchased.
- Successfully applied for a \$2000 award from the UW Campus Sustainability Fund to finance our research.

Treasurer, Students Expressing Environmental Dedication. (Spring 2010 - Spring 2011)

- Worked with HFS and residential hall government to organize events to enrich student's residential hall living and raise awareness about environmental issues facing students, focusing on how they can make a difference in their daily life.
- Managed a \$2500 club budget.
- Recorded meeting notes.

• Field Skills:

- Plant Identification, including Gymnosperms and Angiosperms with an emphasis on pacific northwest species.
- Mushroom Identification, prominent clades of the pacific northwest.
- Happy to work 9-12+ hour days under adverse and inclement weather conditions.
- Enjoys hiking many miles and sleeping in a tent.
- Laboratory Skills:
 - Sterile Technique creating and maintaining a sterile environment.
 - Preparation of sterile stock solutions.
 - Preparation of sterile media solutions.
 - Preparation of lab materials.
- Computational Skills:
 - Proficiency with PYTHON 2.7.3.
 - Proficient with data analysis in Excel.

AWARDS

- Dean's List, 5 quarters.
- Mary Gates Research Scholarship, 2013.

PRESENTATIONS

• S.E. Reed, J.H. Marcus, P.L. Conlin, B. Kerr (2012) *The Boy Who Cried Wolf: Cue Reliability and the Evolution of Phenotypic Plasticity*. Biology 481, University of Washington.

REFERENCES

- Ben Kerr, Principle Investigator, Kerr Lab, University of Washington.
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