

Rubenstein Summer Research Expo: Position Description

Graduate Researcher:	Lindsay Barbieri (Bar)		
Contact:	lkbar@uvm.edu		
Attending Expo on Feb 21, 2017?	Sadly no (but hope to provide a short video!)		
Job Title(s) & Number of Available Positions:	Field Technical Assistant (1) Lab Assistant (1) Climate Science:	Research Topic	agriculture, climate, environment, greenhouse gas emissions, mitigation, technological monitoring (use of drones and new sensors)
Position Logistics			
Location:	Gund Institute, Jeffords Lab & Spear Street Lab and at field sites: Shelburne Farms and North Williston Dairy Farm	Transportation Needed:	No specifics, though use of car could be helpful
Housing Provided (Y/N):	No	Estimated Start/End Dates:	April 15 2017 (or earlier)
Unpaid/Paid:	unpaid	Part Time/ Full Time:	5-20 hours per week (depending on availability and interest)
Position Description			
<p>DESCRIPTION OF RESEARCH</p> <p>AGRICULTURE IS ONE CRITICAL WAY HUMANS INTERACT WITH AND INFLUENCE OUR GLOBAL ENVIRONMENT. MAINTAINING FOOD PRODUCTION AND FARMER LIVELIHOODS IS IMPORTANT, AS IS IMPROVING OUR UNDERSTANDING OF HOW AGRICULTURAL SYSTEMS ARE IMPACTING ECOSYSTEMS AND THE ENVIRONMENT - FOR BETTER AND WORSE. WORK THIS SUMMER WILL INCLUDE CARRYING OUT A SUITE OF ENVIRONMENTAL MONITORING ON PAIRED FIELDS (CONVENTIONAL MANAGEMENT AND BEST PRACTICES MANAGEMENT) AT TWO AGRICULTURAL SITES: NORTH WILLISTON (CORN SYSTEM) AND SHELBURNE (HAY SYSTEM):</p> <p>ENVIRONMENTAL MONITORING / DATA COLLECTION:</p> <ul style="list-style-type: none"> ● ON FIELD GREENHOUSE GAS EMISSIONS ● SOIL SAMPLING ● WATER QUALITY MEASURES (AND NUTRIENT RUNOFF) - BOTH FROM EDGE OF FIELD SURFACE RUNOFF AND SUBSURFACE LEACHING ● VEGETATION QUALITY / DIVERSITY ● SATELLITE AND UNMANNED AERIAL SYSTEMS (UAS) IMAGERY <p>ROLE AND RESPONSIBILITIES</p> <p>HELP COLLECT AND ANALYZE FIELD DATA (GREENHOUSE GAS, SOIL SAMPLES, WATER SAMPLES) FROM A VARIETY OF ON-FIELD MONITORING (FLYING DRONES, IN-SITU SAMPLING, EDGE OF FIELD SAMPLING, ETC)</p> <p>LAB WORK: PROCESSING SOIL AND WATER SAMPLES</p>			

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PREFERRED SKILLS

ALL THE MONITORING TECHNIQUES AND SKILLS CAN BE TAUGHT, THOUGH PRIOR FIELD OR LAB WORK IS USEFUL. MAIN IMPORTANT SKILLS WOULD BE: ATTENTION TO DETAIL, WILLINGNESS TO LEARN NEW SKILLS, ORGANIZATION AND COMMUNICATION SKILLS.

ADDITIONAL NOTES

THIS PROJECT HAS MANY FURTHER POSSIBLE OPPORTUNITIES DEPENDING ON INTERN'S INTEREST AND SKILLS:

LITERATURE - SEARCH, REVIEW AND DOCUMENT CUTTING-EDGE LITERATURE IN ENVIRONMENTAL AND AGRICULTURAL MONITORING METHODS AND EXPERIMENTAL DESIGN TO HELP PLAN & ASSESS CURRENT AND FUTURE RESEARCH

DATA ANALYSIS - HELP PREPARE AND ANALYZE ENVIRONMENTAL AND AGRICULTURAL DATA FROM PREVIOUS YEARS FOR PATTERNS AND TRENDS TO HELP TARGET FUTURE DATA COLLECTION AND HELP INFORM MANAGEMENT STRATEGIES

GIS / REMOTE SENSING - HELP COLLECT, PROCESS AND ANALYZE UAS IMAGERY AND DATA - INCORPORATE SATELLITE DATA TO HELP SCALE UP ON-FIELD MEASUREMENTS, POSSIBLE CALIBRATION AND/OR VALIDATION OF PROCESS-BASED MODELS.

SENSOR NETWORKS - HELP PLAN AND IMPLEMENT SMALL SENSOR NETWORK EXPERIMENT, DATA COLLECTION AND MANAGEMENT

SOIL MANIPULATION STUDY: POSSIBLE LAB OR FIELD WORK MONITORING INCUBATION/RAINFALL MANIPULATION

Application Details	
Open to Hiring Recent Grads? (Y/N):	Yes
Application Instructions:	please submit resume and 1 paragraph description of relevant interest and skills to lkbar@uvm.edu
Application Due Date:	April 10th 2017

Rubenstein Summer Research Expo: Position Description

Graduate Researcher:	Brendan O'Brien		
Contact:	Brendan.obrien.1@uvm.edu		
Attending Expo on Feb 21, 2017?	Yes		
Job Title(s) & Number of Available Positions:	Research Assistant	Research Topic	Ecological design, nutrient cycling, waste resource recovery, biogeochemistry
Position Logistics			
Location:	Burlington, VT	Transportation Needed:	Travel to Spear St. Forest Service building for lab work and greenhouse experiments
Housing Provided (Y/N):	No	Estimated Start/End Dates:	Summer 2017 (May 15 th -August 20 th 2017)
Unpaid/Paid:	TBD	Part Time/ Full Time:	Part time: ~ 10 hrs/week (negotiable)
Position Description			
<p>DESCRIPTION OF RESEARCH</p> <p>VERMONT'S ACT 148 UNIVERSAL RECYCLING LAW MANDATES DIVERSION OF ALL ORGANIC MATERIALS FROM LANDFILL WASTE BY 2020. PASSAGE OF THIS LEGISLATION WILL REQUIRE AN INCREASE IN COMMERCIAL COMPOSTING AND ANAEROBIC DIGESTION FACILITIES, LEADING TO A NET INCREASE IN RECLAIMED ORGANIC NUTRIENTS TO BE UTILIZED AS FERTILIZERS AND SOIL AMENDMENTS. THE COMPOSITION OF THESE MATERIALS WILL AFFECT THEIR FATE IN THE ENVIRONMENT. THIS RESEARCH AIMS TO EXPLORE HOW LAND APPLICATION OF RECLAIMED ORGANIC NUTRIENTS IN AGRICULTURAL LANDSCAPES MAY AFFECT SOIL MICROBIAL COMMUNITIES AND IMPACT SOIL HEALTH AND WATER QUALITY.</p> <p>ROLE AND RESPONSIBILITIES</p> <p>Assist with graduate student thesis research. Aid in the collection of field samples; construction and oversight of greenhouse incubation experiments; assist with laboratory analyses and data collection.</p> <p>PREFERRED SKILLS</p> <p>Preference given to candidates with laboratory experience in the fields of soil science and water quality. Attention to detail and strong organizational skills required.</p> <p>ADDITIONAL NOTES</p> <p>Compensation and time commitment currently under review. Please come and meet me (Brendan) at the Research Expo to discuss this exciting opportunity.</p>			
Application Details			
Open to Hiring Recent Grads? (Y/N):	Yes		
Application Instructions:	Please submit current resume or CV and cover letter describing your interests and qualifications.		
Application Due Date:	March 24th		

Rubenstein Summer Research Expo: Position Description

Graduate Researcher:	Brian O'Malley		
Contact:	bpomalle@uvm.edu		
Attending Expo on Feb 21, 2017?	No		
Job Title(s) & Number of Available Positions:	Technician	Research Topic	Aquatic Ecology
Position Logistics			
Location:	Rubenstein Ecosystem Science Laboratory, Burlington,VT	Transportation Needed:	N
Housing Provided (Y/N):	N	Estimated Start/End Dates:	May-August 2017
Unpaid/Paid:	Unpaid, but potential for applying for a stipend	Part Time/ Full Time:	Part time or Full time
Position Description			
<p>DESCRIPTION OF RESEARCH</p> <p>We seek an undergrad or recent graduate to assist with a project that explores the diel vertical migration behavior of an omnivorous macroinvertebrate (<i>Mysis diluviana</i>, aka the 'Opossum shrimp') in Lake Champlain. Work will be based out of the Rubenstein Lab located on the shores of Lake Champlain. The focus of the 2017 field season will be assessing spatial variability in partial migration of this key invertebrate species. Developing a mini-research project in-line with the big picture goals of this project is possible for students interested in continuing research into the fall semester either through research credits or an independent study. Occasional opportunities to help out with other graduate research projects will be available to broaden the student's skillset.</p> <p>ROLE AND RESPONSIBILITIES</p> <p>We anticipate the student will help collect, process, and analyze biological samples. The summer will include a blend of field, lab, microscope, and computer work. Potential assignments include: counting and identifying invertebrates, preparing samples for stable isotope analysis, performing lipid extractions, data entry, and field sampling.</p> <p>PREFERRED SKILLS</p> <p>Comfortable working on boats and able to participate and occasional sampling trips at night. Prior experience with microscopes and using Excel spreadsheets to enter data is preferred but not necessary.</p> <p>ADDITIONAL NOTES</p>			
Application Details			
Open to Hiring Recent Grads? (Y/N):	Y		
Application Instructions:	Email brief cover letter, resume, and one reference to bpomalle@uvm.edu		
Application Due Date:	Not specified but sooner the better		

Rubenstein Summer Research Expo: Position Description

Graduate Researcher:	Peter Clark		
Contact:	Peter.Clark@uvm.edu		
Attending Expo on Feb 21, 2017?	Yes		
Job Title(s) & Number of Available Positions:	Research Assistant - 1	Research Topic	Forest ecology, silviculture, dendrochronology.
Position Logistics			
Location:	Vermont forests, based out of Burlington	Transportation Needed:	No
Housing Provided (Y/N):	No, only on days we travel	Estimated Start/End Dates:	Mid-late May through mid-late August 2017
Unpaid/Paid:	\$10-12 per hour, depending on experience	Part Time/ Full Time:	40+ weekday
Position Description			
<p>DESCRIPTION OF RESEARCH</p> <p>The University of Vermont, Rubenstein School of Environment and Natural Resources (RSENR) is seeking an undergraduate research assistant to work on a variety of field projects examining the ecology and management of forests in Vermont. Research includes examining tree-ring response to past climate in managed forests, the regeneration of future adapted trees in silviculture experiments, and examining stand development from long-term forest growth-yield experiments. Some field sites are located in, but not limited to, UVM experimental forests including Jericho, Wolcott and Washington Research Forests. The research assistant will work alongside a RSENR PhD student as part of a multidisciplinary team of scientists from the University of Vermont, U.S. Forest Service Northern Research Station and Vermont Agency of Natural Resources.</p> <p>ROLE AND RESPONSIBILITIES</p> <p>Work will involve extensive field work, including the collection of tree cores, forest measurements, vegetation ID, and woody debris data. The position begins mid/late May 2017 and ends mid/late August. The research team will be based out of the Burlington, VT area but will involve multi-night travel and camping throughout Vermont. Housing expenses will be provided on days when work necessitates overnight travel. Hourly wage ranges from \$10-\$12 depending on experience.</p> <p>PREFERRED SKILLS</p> <p>a background in tree and vascular plant ID, tree coring and forest measurements, forest ecology, silviculture, orienteering, or related skills a plus, but not necessary.</p>			
Application Details			
Open to Hiring Recent Grads? (Y/N):	Yes		
Application Instructions:	Interested candidates should e-mail a cover letter and resume describing their background, qualifications and interests to Peter.Clark@uvm.edu		
Application Due Date:	March 8 th 2017		

Rubenstein Summer Research Expo: Position Description

Graduate Researcher:	Marina Golivets		
Contact:	mgolivet@uvm.edu		
Attending Expo on Feb 21, 2017?	No		
Job Title(s) & Number of Available Positions:	Research Technician	Research Topic	Invasion ecology, plant ecology
Position Logistics			
Location:	George D. Aiken Forest Sciences Laboratory	Transportation Needed:	No
Housing Provided (Y/N):	No	Estimated Start/End Dates:	April 15, 2017 – September 15, 2017
Unpaid/Paid:	\$12/hour	Part Time/ Full Time:	20 hrs/week
Position Description			
<p>DESCRIPTION OF RESEARCH</p> <p>A controlled (greenhouse) experiment on plant-soil and plant-plant interactions.</p> <p>ROLE AND RESPONSIBILITIES</p> <p>A technician will be responsible for establishment and maintaining experimental treatments in greenhouse (April - July) and for data collection (August). Data collection process will include plant biomass measurements, mounting and analysis of mycorrhizae samples, and soil analyses.</p> <p>PREFERRED SKILLS</p> <p>An interest in invasion ecology/plant ecology; proven ability to work independently with limited supervision; attention to detail; proficiency using Microsoft Excel.</p> <p>ADDITIONAL NOTES</p>			
Application Details			
Open to Hiring Recent Grads? (Y/N):	Yes		
Application Instructions:	Send your resume or cover letter to Marina Golivets and Dr. Kimberly Wallin (kwallin@uvm.edu)		
Application Due Date:	Until filled		

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Graduate Researcher:	Charlie Nicholson		
Contact:	ccnichol@uvm.edu		
Attending Expo on Feb 21, 2017?	Yes		
Job Title(s) & Number of Available Positions:	field technician (3)	Research Topic	pollination ecology, landscape ecology, bees
Position Logistics			
Location:	Vermont (Chittenden, Addison, Washington & Grand Isle counties)	Transportation Needed:	Y
Housing Provided (Y/N):	N	Estimated Start/End Dates:	c. May 08 to August 11
Unpaid/Paid:	pay requisite on experience	Part Time/ Full Time:	full time
Position Description			
<p>DESCRIPTION OF RESEARCH</p> <p>Do you like to work outside? Do you care about the bees? Our lab is looking for motivated individuals to help with our pollination field work. In brief, we work with farmers to better understand how diverse bee communities improve crop production for blueberries and raspberries. We will learn to identify bees, interview farmers, measure pollination and maybe eat a couple of berries along the way.</p> <p>ROLE AND RESPONSIBILITIES</p> <p>Duties include: sampling pollinator abundance, collecting bee specimens, conducting vegetation surveys, performing pollination experiments, and specimen processing and curation. Technicians will gain valuable research experience in a field setting, working directly with the study's PI, Taylor Ricketts and doctoral student Charlie Nicholson.</p> <p>PREFERRED SKILLS</p> <p><i>Must be available to work 4-5 days a week, Monday through Saturday.</i> Successful applicants will have: A strong interest in field biology, native bees, and landscape or community ecology; willingness to work outdoors rain or shine; acute attention to detail; ability to work well with others; flexible availability. Previous field research experience and your own car are preferred but not required.</p> <p>ADDITIONAL NOTES</p> <p>All are welcome to apply</p>			
Application Details			
Open to Hiring Recent Grads? (Y/N):	N		
Application Instructions:	Interested applicants should send a cover letter including their availability, previous field experience, and interest in the project along with a resume to: ccnichol@uvm.edu In subject line please enter "BEE FIELD WORK"		
Application Due Date:	3/17/17		

Rubenstein Summer Research Expo: Position Description

Graduate Researcher:	Jennifer Santoro		
Contact:	jennifer.santoro@uvm.edu		
Attending Expo on Feb 21, 2017?	Yes		
Job Title(s) & Number of Available Positions:	Field Research Assistant (1 position available)	Research Topic	Forestry: Disturbance Ecology
Position Logistics			
Location:	Based in Burlington, VT with weekly travel to Brimfield, MA	Transportation Needed:	No, Jen will drive to MA each week
Housing Provided (Y/N):	Yes, when in MA. Not in Burlington.	Estimated Start/End Dates:	Approx. May 15 th to August 15 th (some flexibility)
Unpaid/Paid:	\$10-\$12 per hour based on experience	Part Time/ Full Time:	Full time, 40 hours/week
Position Description			
<p>DESCRIPTION OF RESEARCH</p> <p>The University of Vermont, Rubenstein School of Environment and Natural Resources is seeking one research assistant to assist with a field project examining the effects of salvage logging on western Massachusetts hemlock-hardwood forests impacted by tornado disturbance events and the subsequent influence of these effects on forest adaptive capacity in the context of climate change. The work will take place in Brimfield State Forest, MA. Collaborators include a multidisciplinary team of graduate students and scientists from the University of Vermont, Massachusetts DCR, The Nature Conservancy, and USDA Forest Service Northern Institute of Applied Climate Science.</p> <p>ROLE AND RESPONSIBILITIES</p> <p>Work will involve extensive field work, including the collection of individual tree metrics, vegetation, and woody debris data according to MA DCR data protocols. This project also involves weekly travel to the research site in MA. If data collection is completed before mid-August, the student will assist with data post-processing and other project needs.</p> <p>PREFERRED SKILLS</p> <p>Applicants should have a background in forestry, natural resources, environmental science, ecology, or biology. An excellent working knowledge of tree identification and common forest measurements is strongly desired. Applicants must be willing and able to work efficiently in remote forested settings as part of a research team. Applicants must also be able to hike through varied terrain to reach study areas and be willing to work long hours outdoors in various weather conditions.</p> <p>ADDITIONAL NOTES</p> <p>Housing expenses will be provided during the week when work necessitates overnight travel to Massachusetts. The position will be based out of Burlington, VT, and will involve weekly, multi-night travel to western Massachusetts for field work. There is the potential for this position to be based out of Brimfield, MA, pending lodging arrangements.</p>			
Application Details			
Open to Hiring Recent Grads? (Y/N):	Yes		
Application Instructions:	Please email 1) a resume and 2) a letter describing your background, qualifications, and interests to Jennifer Santoro		
Application Due Date:	Friday, March 3 rd , 2017		